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The New Government Architecture Bill. The bill, of which full particulars were given last month, is now before the House of Representatives, having been favorably reported upon by the Committee on Buildings and Grounds. It will greatly aid its passage through the Senate if a large number of individual indorsements of the bill from architects can be presented, and to this end we would suggest that such be sent to President D. H. Burnham at the earliest possible moment.

Baltimore Court-house Competition. We devote considerable space in this issue to the late courthouse competition in Baltimore because of its importance from the standpoint of design. It is the first time that so many of the best architects in the country have together studied the problem of a courthouse, and the results are interesting. It is to be regretted that McKim, Mead & White did not submit designs, but, through the kindness of Mayor Latrobe and the Building Commission, we are enabled to give a number of the most interesting studies submitted. As to the general plan pursued by the commission in securing designs and selecting one, it is difficult to either approve or condemn. It is evident that the intention of the commission was to secure a first-class design and that the mode of procedure recognized as correct by the profession was given due consideration. Any failure to carry out this plan should probably be laid to local influences and environment, and as the attitude of the selected competitors is one of complaisance and the commission seem pleased with the accepted design, criticism can be waived, though the method may not be recommended to future boards.

Annual Meeting of Ohio Chapter A. I. A. The annual meeting of the Ohio Chapter of the American Institute will be held at Put-in-Bay, Lake Erie, on August 16. In the following circular letter Secretary Kramer urges a full attendance of members:

OHIO CHAPTER A. I. A., OFFICE OF THE SECRETARY,
AKRON, Ohio, July 28, 1894.

DEAR SIR,—In accordance with the By-Laws of the Ohio Chapter A. I. A., the regular time for holding the annual Chapter meeting is the third Thursday of August.

At the last annual meeting, held in Columbus, August, 1892, Put-in-Bay was selected as the place for holding the next session. On account of the World's Fair, held in 1893, the meeting of the American Institute of Architects and the World's Congress of Architects, the last of July, 1893, it was deemed inadvisable to hold regular meeting in 1893. Afterward, on a canvass of the membership, it was determined to defer said meeting until our regular session for 1894.

Therefore, you will consider this as regular notice that the next annual convention of the Ohio Chapter of the American Institute of Architects will be held, commencing Thursday, August 16, 1894, at 2 P.M., in the parlors of the Beebe House, Put-in-Bay Island, Lake Erie, Ohio.

As there has been no meeting of the Chapter for two years, all members should arrange their business so as to enable them to attend and devote a couple of days to matters of mutual interest and benefit. Matters of special importance will be brought before the Chapter for attention and action. Members who were appointed on committees and have not yet reported, should be prepared to do so.

Let us make this an exceptional meeting as regards attendance. Come early and come prepared to take part. Let each member prepare a paper on some subject that will be of mutual interest.

To secure accommodations, members contemplating attending should advise H. Beebe & Son, Put-in-Bay, as early as possible, of their intention, together with number in party. Special rates will be secured.

GEORGE W. KRAMER, Secretary.

While the meeting takes place at one of the most enjoyable summer resorts in the country, and these surroundings may attract many, the fact that there is much earnest work to be done should not be lost sight of.

MECHANICAL HEATING AND VENTILATION.

BY M. C. HUYETT.

SECOND PAPER.

TABLES and data in text-books — so-called — on heating and ventilating are based on *experiments*, not practical working plants, and are of no value whatever in proportioning a mechanical system. "Sanitary experts" attached to health commissions, and some architects, manifest their ignorance of fundamental principles by advocating that ventilating flues "should have the exit openings near the ceiling, for the reason that the temperature of the air in the room being at 70° Fahr., and air expelled from the lungs being about 98°, the foul product of respiration will first rise and later descend to the breathing line in its travel toward floor line exits." In part that is true when "natural means" for ventilation is used, and is the result of lack of volume of air supply to give diffusion, and lack of pressure of air delivered above breathing lines with travel downward and toward exit openings.

The facts are, carbonic dioxide in weight is 1.5, as compared with 1 for pure air, and falls because of its weight; applying their theory the lighter gases would pass upward and outward with the warmest and most pure air, while carbonic dioxide and cooled vapor of water — the most poisonous results of respiration and transpiration — following the natural law of gravity will remain in the room, and to which can be added the cold transmitted by glass exposures and leakage inward about window sashes; with that condition sufficient heating, good ventilation, and an equable temperature is impossible.

Under "natural conditions" the heat—force—is always applied at or near floor lines, causing *ascending air currents*; with mechanical heating and ventilation, properly applied, the heat inlets are placed above head lines and the exit to ventilating risers

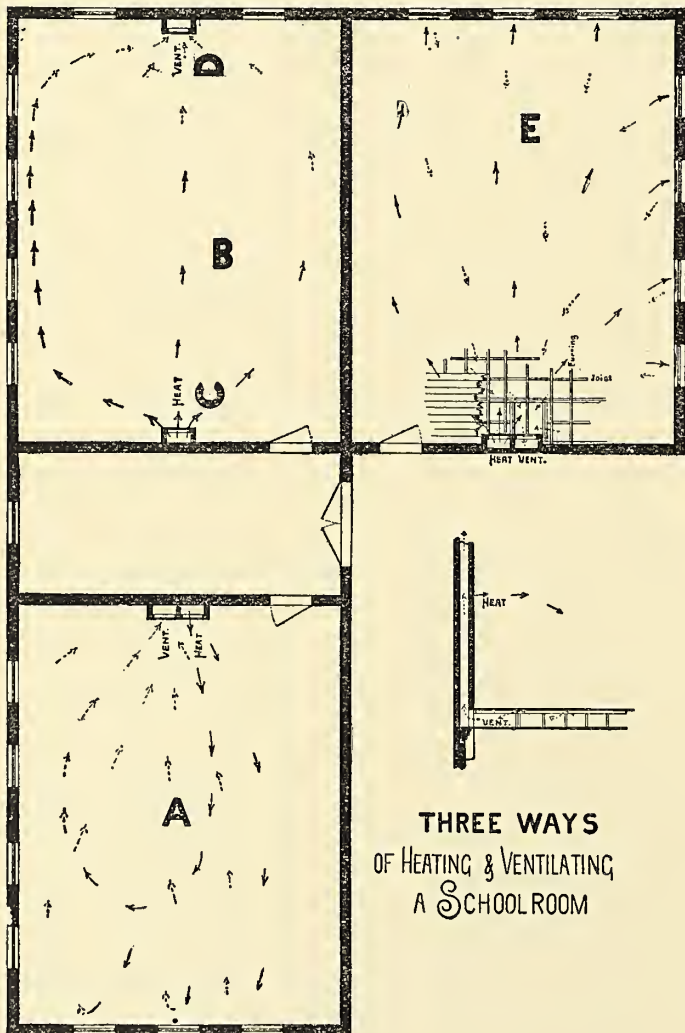


FIG. 1.

at floor lines, so that the large, constant, controllable volume of pure air presses the foul product downward and outward with as much certainty as water will drain out of a pail if a hole shall be

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made in its bottom. VOLUME GIVES DIFFUSION, PRESSURE DISPLACEMENT, and GRAVITY settles the question as to which stratum of air shall first and continuously be displaced.

"A" shows ventilating flues as ordinarily applied; with direct heating it does not matter WHERE the ventilating flues shall be placed, *they do not ventilate* — "no more air can be exhausted than the quantity admitted," and no provision is made for air inflow.

"B" shows a correct placing of flues for indirect heating — natural or mechanical — if floor surface exit opening shall be used; the travel of the warmed air will be from "C" toward "D," and will give diffusion. The main objection to that plan is the fact that cold transmitted by glass exposures and which leaks inward

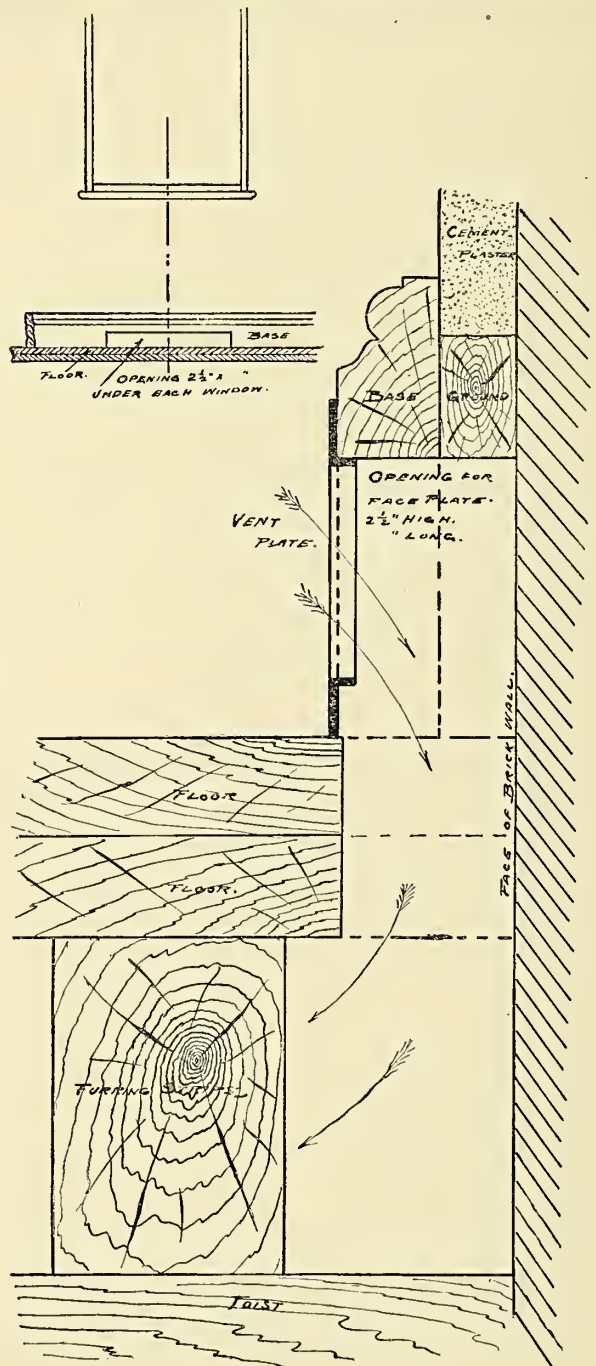


FIG. 2.

Detail of displacement openings and ventilating space under floors; double floor is not arbitrary.

about sashes falls to floor lines and travels toward the exit openings, exposing the feet and legs of occupants to cold drafts unless the air at and above the breathing line shall be overheated. "A" is the worst possible plan for displacement with any indirect system.

"E" shows the most sensible, efficient, and economical system for displacement possible. When applied, the ventilating riser can be placed at will, the only essential being that where joists do not end in the wall in which the riser is placed, a "trimmer" must be set back six or eight feet with two joists extending therefrom to the wall in which the riser is placed, for reservoir, in order that

its sides shall give free inlet for air to gather for entering the opening placed between the ceiling and joist line. When this application is made, cold transmitted by glass surfaces, and cold air which leaks inward about sashes, *is displaced where transmitted* and passes outward under floor lines without contact with the occupants. If heat shall enter at the south end of a room and the wind be from the north, the warm current will travel toward the points of displacement and be diffused; it means at least ten per cent lessened fuel bills, increased comfort, and healthful conditions.

HOW MUCH VENTILATION?

"Pure air, pure water, wholesome food, comfortable clothing, cleanliness of person and cleanliness of surroundings are essential hygienic conditions without which there can be no promise of individual or public health;"* except the first element they are conditions which pertain to home life to a greater degree than at any time in the past, and would strengthen and add to the longevity of human life, but for the fact that in schoolrooms, churches and public halls the seeds of disease and future enfeebled constitutions are being sown by means of overheating, cold drafts, and impure air the result of insufficient ventilation.

What quantity of pure air shall be supplied, and how shall the requirements be measured, must now be determined. We determine the quantity of food required by the quantity consumed, approximately a measurable quantity; with greater accuracy we may determine the required volume of air supply, using as a basis the quantity of air breathed and thus vitiated and the volume additional which this breathed air will contaminate.

"The average individual exhales at each respiration nearly one cubic inch of carbonic dioxide with which is associated other poisonous matter; the addition of this one cubic inch to the carbonic gas already contained in the air increases the quantity to three cubic inches—the maximum degree of impurity which can be tolerated by the system without danger, and thus renders that quantity of air unfit for further respiration.

"It thus appears that with each breath each individual contaminates 5,000 cubic inches, approximately three cubic feet. As a person breathes about twenty times a minute the amount of air required by each individual per minute is three times 20, or 60 cubic feet; multiplying this result by 60 gives 3,600 as the number of cubic feet of pure air required by each person to replace air which has been contaminated by the process of respiration in one hour.

"If this quantity is not obtained, the proportion of organic impurities increases until the air becomes so intensely poisonous as to be productive of serious disease."† In schoolrooms the breathing space is, as a rule, limited to less than 200 cubic feet per pupil; for 200 cubic feet, Dr. Parkes gives 2,800 cubic feet as the quantity required for the first hour and 3,000 cubic feet per pupil per hour thereafter.

Charles H. Haswell is accepted as standard authority worldwide; in his handbook, page 84, he states: "An average-sized man will exhale from his lungs and body from .6 to .7 of a cubic foot of carbonic acid per hour. Assuming, then, that there are four volumes of carbonic acid in 10,000 parts of air, and that a man in a room with a lighted lamp or candle furnishes from 1.2 to 1.4 cubic feet of acid per hour, there will be required to maintain the air at the required conditions for one person, the allowable pollution of it being six volumes in 10,000, fully 3,000 cubic feet of fresh air per hour." By experiments made in Paris it was shown that there were required from 2,400 to 3,120 cubic feet of air per hour.

No person will use food or water which has been in the mouth of another person, yet the neglect to supply the known quantity of pure air for ventilation forces people to breathe air which has been time and time again in contact with the mouth or nostrils and throat and lungs of hundreds of persons more or less diseased; it is not pleasant contemplation, but the condition is an existing fact.

INSUFFICIENT VENTILATION.

"TWENTY-FIVE SOUTH DAKOTA MEMBERS SERIOUSLY ILL, AND TWO HAVE DIED.

"SIOUX FALLS, S. D., March 7.—Twenty-five members of the legislature are seriously ill here. Two have died during the session, and one today is reported on his deathbed. The general ailment is pneumonia. Inadequate ventilation in the statehouse,

which permits of a multitude of drafts, has caused the whole trouble. The legislature adjourned this morning, having failed by one vote to carry the bill for resubmission of the prohibition amendment."

But cause is not removed, and effect continues to add to death's victims.

"DURBOROW AND OTHERS OF VENTILATION COMMITTEE CALL ON CAPITOL ARCHITECT.

"Special to the Chicago *Daily News*.

"WASHINGTON, D. C., June 21.—Representative Durborow and his colleagues on the committee on ventilation and acoustics have made up their minds to oust Col. Edward Clark, architect of the capitol.

"Yesterday Mr. Durborow, accompanied by several members of the committee, called on the architect and requested his resignation, but he declined to comply with their wishes and the committee has decided to report a resolution requesting him to resign.

"The reason for requesting the architect to resign is the bad sanitary condition of the capitol. Recently the committee of which Mr. Durborow is a member made a careful personal inspection of the capitol building and found that the basements were stored with musty old documents in a state of neglect, and that the air ducts and ventilating pipes were choked with filth, causing deleterious ventilation and an unwholesome and poisonous atmosphere to flow into the house of representatives. These facts were set forth in a report made to the house and occasioned considerable surprise.

"Architect Clark has served in his present capacity since 1865, succeeding Thomas W. Walter, the architect who superintended the construction of the two wings of the capitol. Mr. Clark himself had been Walter's assistant and as such had charge of a number of important pieces of government work."

"WASHINGTON, D. C., June 8, 1894.—The day's proceedings in the house were enlivened by Mr. Walker's (Rep., Mass.) complaint of the poor ventilation of the house and the incapacity of the architect of the capitol."

That is a specimen of telegraph dispatches yearly from Washington and certainly is a *severe criticism of the ability employed* by the United States government. It would be just as reasonable to employ a heating and ventilating expert to make detail drawings and specifications for an elaborate capitol building as to have an architect make the plans, estimates and specifications for an elaborate modern sanitary heating and ventilating plant.

From the capitol at Washington down to the latest completed large public building, with but few exceptions, the history is alike, "*unsatisfactory*"—*cause* remains and *effect* continues; notwithstanding these facts, in the next public building, or school, *like cause will be incorporated and like effects produced*.

Call in a heating and ventilating engineer before the final adoption of plans.

CALL IN THE DOCTOR.

When a person is sick the doctor is called; when a surgical operation is necessary the surgeon is called; when electrical appliances are needed the electrical expert is called in for consultation; when an elaborate steam plant is to be installed a mechanical engineer is retained; but when heating and ventilating apparatus is required any "jack-at-all-trades"—steamfitter—is considered competent (?), or at best the plans and specifications are made by persons who have had *no practical experience with the details of construction and application*; flues for ventilation are planned and built, but they *do not ventilate*; the general public—the sufferers—condemn the building, while *the guilty maker of the conditions escapes the just indignation*.

(To be continued.)

THAT select and small body of Frenchmen who take their entire intellectual food from the *Journal Officiel* were thunderstruck a few days since to read the report of Deputy Armand upon a petition addressed to the Chamber of Deputies by a certain inhabitant of a small town in the department of Loire-Inferieure. This petition begged for nothing less than the entire rebuilding of the city of Paris according to a plan which he therewith submitted to the chamber!! What grave and what immense defects the author of this modest petition could see in Paris (which most of the civilized world finds quite satisfactory) we are unaware, nor shall we probably ever know, since the deputies were not enlightened by Mr. Armand, who only condescended to devote three lines to the subject.—*La Semaine*.

*John Avery, M.D., President Michigan State Board of Health.

†J. H. Kellogg, M.D., of Michigan State Board of Health.

DIRECT METHODS IN ARCHITECTURAL PERSPECTIVE.

BY CHARLES E. ILLSLEY, A.M., C.E., ARCHITECT.

CHAPTER X.

ROOFS, GABLES, DORMERS, CORNICES.—PROBLEM XV, FIG. 144.

TO design in perspective a building 10 feet front by 22 feet deep, with hip roofs and gables, the front end of the building being in the picture plane. Here S and $\frac{D}{2}$ (Section 133) are used, the latter alone being in sight. The point S is beyond the limits of the cut at the left.

The front wall, $A B F E$, is in elevation. The perspective plan is here drawn above the base line at $a c e d$, as follows: Extend the horizontal $a c$ to b , making $a b$ 11 feet long to scale. Draw normals from a and c , and from b draw a diagonal toward D . This will intercept $a d$ at a distance, $a d$ perspectively equal to twice $a b$ (Section 133), i. e., equal to 22 feet. Draw the horizontal $d e$ to complete the perspective plan $a d e c$. Through e erect a vertical to intercept normals from E and F . This completes $E F C D$, the side wall.

156. To draw the eaves line, extend $E A$ to f , making $A f$ equal the true projection (to scale) of the eaves. Through the middle of $A f$ draw the diagonal $D A f'$ to meet in f' a normal from A .

Draw an indefinite horizontal $f' h$; this is the line of the front eaves. Were V_r available, a diagonal from V_r through E would

diagonal in 7. Draw through 7 the horizontal 576 and through 3 the normal 36. The half-distance (Section 133) being used, the normal $47 =$ twice 23, i. e., $47 = 13$. But in perspective $15 = 47 = 36$, since these are normals intercepted by the horizontals 13 and 56. Consequently 1365 is a square and 16, its diagonal, is the miter line required.

Or, draw an indefinite normal 12, and find its middle 5 by constructing on 12 any perspective rectangle, as shown, and finding the center at the intersection of its cross diagonals. Draw the diagonal 273 to $\frac{D}{2}$; also the horizontal 576 and the normal 36.

The half-distance being used, $12 =$ twice 13, wherefore 15, the half of $12 = 13$; 1365 is therefore a perspective square.

Either of these methods may be used at D .

158. To draw the front gable. Lay off its true width at $A i$ on $A E$ and draw the normal $i i'$, which locates the left corner i' . At k , the middle of $A i$, erect a vertical $k k'$ to the true height of this gable, draw the normals $k l$ (to meet $h f'$ in l) and $k' l'$, to meet the vertical $l l'$ in l' , the apex of the gable. Join $i' l'$ and $l' f'$; also join $A k'$ for the line where the gable meets the front wall.*

159. The side gable is at the middle of the side wall, found by the cross diagonals intersecting at o , where is erected a vertical $o o'$. Produce $F E$ to o'' , making $E o''$ equal the true height of this gable. Draw the normal $o'' o'$ to transfer this height to the vertical $o o'$, which rises through the middle of the gable. Draw

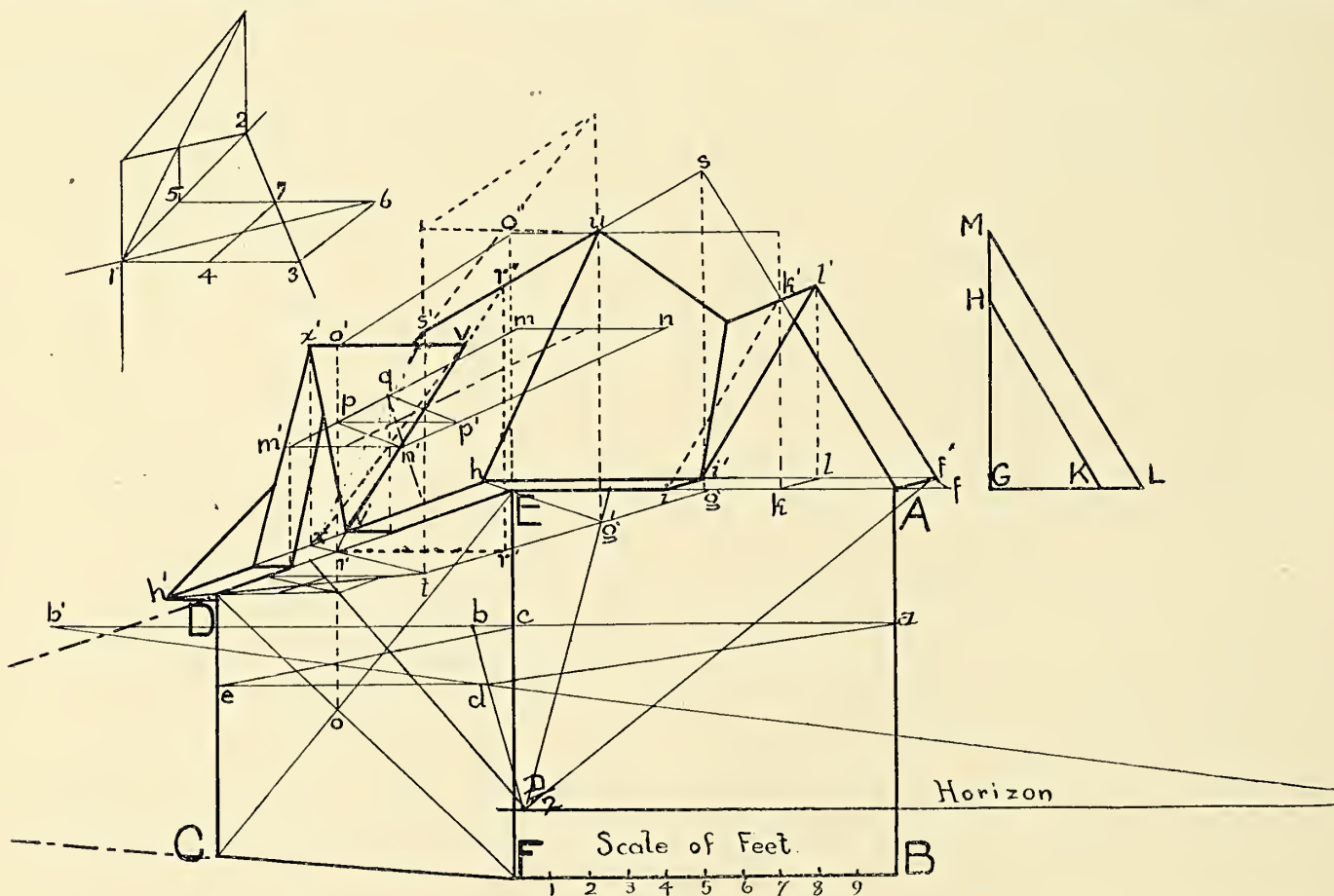


FIG. 144.

meet $f' h$ in h , the left-hand corner of the front eaves. To find h without the aid of V_r , draw a normal from any convenient point on $A E$, as g its center, and through the middle of $E g$ draw a diagonal toward D to meet the normal $g g'$ in g' . $E g g'$ forms two sides of a square, consequently its diagonal $E g'$ is the diagonal of a square, and therefore it is the miter line at E which will terminate the eaves line $f' h$ at h . Draw the indefinite normal $h h'$.

157. To draw at D the miter line which terminates the eaves line $h h'$, the vanishing point for this miter line (which is the same as for the miter at A), being too distant for use, we again resort to the construction of an auxiliary square of any convenient dimension at D . For this two methods are shown to enlarged scale in the special diagram above D . At the point i draw an indefinite horizontal 13; also an indefinite diagonal 32 (toward $\frac{D}{2}$) and at 4, the middle of 13, draw a normal 47 to meet the

the indefinite horizontal $x' o' v$. This makes the ridge of the side gable.

Both gables have the same slope. At the right draw $G K H$, the half of the front gable, produce $G H$ to M , making $G M$ equal to the true height of the side gable, and draw $M L$ parallel with $H K$. This construction gives $G L$ the half-width of the side gable. Set this off at any convenient point in the picture plane as at $u n$, draw normals $u m'$, $n n'$, draw through p , the intersection of $u m'$ and $o o'$, the horizontal $p p'$ to meet $n n'$ in p' , find the middle of $p p'$ and through it draw the diagonal $q n'$ (toward $\frac{D}{2}$); also the horizontal $m' n'$. The half-distance being used, $n' p' = p p'$. But, $p p'$ and $u' n'$ being horizontals, $p p' =$

*In all planes which do not recede, i. e., which are parallel with the picture plane, lines may be halved, etc., with the dividers. Were the angle of the gable lines given, the gable could be drawn directly to its true angles as soon as the points i' and f' were found. But gables are usually given by their height and span, not by their angles.

$m' n'$, and $n' p' = m' p$, whence $p p' n' m'$ is a perspective square. By like reasoning the normal $p q = p p'$, consequently $p q = m' p$. But $p p'$ is the half-width of the gable at the distance $o o'$, and since $m' p$ and $p q$ both equal $p p'$, it follows that $m' q =$ the full perspective width of this gable. Project q and m' upon $D E$ and draw horizontals to meet the eaves line $h h'$ as shown.†

From p drop a vertical upon $D E$ at r , draw a horizontal $r x$ to meet $h h'$, erect a vertical $x x'$, drop verticals on $D E$ from q and m' , draw horizontals as before to meet $h h'$, join the points so located, which are the termini of the gable, with x' , and from the foot of m' draw a line toward o' to mark the meeting of wall and gable.

160. It remains to draw the valley line $v v'$ and to complete the ridge $x' v$. Conceive a vertical plane passing through the ridge of this gable; it will be parallel with the picture plane and its trace upon the horizontal plane at the level of the eaves $D E A$ will be a horizontal $r r'$. The ridge of the main roof is normal to the picture plane (Section 74). If we conceive a vertical plane to pass through this ridge it will be perpendicular to the vertical plane through the ridge of the gable, and its trace upon the horizontal plane $D E A$ will be the line $g t$. The traces $r r'$ and $g t$ cross at r' , the plan of the point r'' , where the vertical plane through $x' v$ would cut the main ridge. The point where this plane meets the eaves line $h h'$ is x . Joining x and r'' , we have the line in which the vertical plane through $x' v$ would cut the main roof if there were no gable. Produce the horizontal $x' v$ to meet $x r''$ in v , the point where the gable ridge meets the main roof, and draw the valley from v to v' .‡

161. To draw the ridge of the main roof. Erect at g the vertical $g s$. This being in the picture plane, lay off on it at s the true height of the main roof, and draw the indefinite normal $s s'$. Since a hip roof is intended, the plan of the points n and s' will be at the intersections of $g t$, which may be considered the indefinite plan of this ridge, with the miter lines already drawn at E and D . These lines meet $g t$ at g' and t , whence verticals will meet $s s'$ in n and s' , which are the points required. Complete the hips by joining $u h$, $u h'$ and $s' h'$. The miter lines $E g'$ and $h' t$ may be considered to be the plans of the hips $n h$ and $s' h'$.

Since the right side of the front gable coincides with the right side of the main roof, its ridge, which is a normal, will terminate upon the left hip of the main front roof. Having drawn this ridge, join its end with g for the valley between gable roof and main roof.

While the detailed description of Problem XV is somewhat extended, the operations described are in fact brief and rapid. It is to be observed that the design of this roof has been completed to required dimensions entirely in perspective, without any preliminary plan or elevation.

(To be continued.)

THE ORIGIN OF GOTHIC ARCHITECTURE.

BY C. BRYANT SCHAEFER.

THE ornamental arts are a continuous development from certain primary forms or motives. The originals, or the derivatives, were made by primeval man as a means of delineating certain sensations or experiences that were newly discovered by him, or of which he became mentally conscious for the first time. It was the opening of a new field of exercise for human endeavor. The architectural art is a divine record of the progress of humanity. The soul speaks in art that of which the mind is unconscious. That which is known, the past, is detailed by knowledge; that which is not known, the future, is expressed by the soul in the poetries.

† The true dimensions must be laid off somewhere in the picture plane, then properly transferred (by normals or otherwise) back to the plane in which the respective members lie. Caution must be had as to lines which may appear to intersect in the drawing, but which in space lie in wholly different planes, so that they could not meet. Such, for example, are the lines $E F$ and $a d$; they appear to cross, but in reality $a d$ is far behind $E F$. The intersection of lines is determined by tracing their planes. For example, $F o'$ is known to be in the plane of the side wall in which lie the normals $C F$, $D E$, etc. Hence the normal in m' lies in the same plane. The vertical $o o'$ is in the same plane by construction. Therefore it is certain that $m m'$ and $o o'$ will cross in reality as well as in appearance.

‡ In this particular case, the point r'' being at the middle of the main ridge $u s'$, it could have been found at once, after u and s' had been determined, by constructing any perspective rectangle upon $u s'$, as shown, and drawing its cross diagonal. But this method would apply only when, as here, the side gable was at the middle of the roof, while the method given above is general, applying to gables in every position.

The first diagrammatic illustrations made by man proceed at once upon diametrical paths of development. One of these is literal representation and the other illiteral. The former is the systematic progress that develops into alphabets. The latter is the cultivation and expression of faith. It is ornamental as opposed to the useful. In the course of man's advance in development he establishes an ideal that is beyond his comprehension. Both courses of progress are finally directed upon this imaginary ideal, which has become a standard that draws them together until literature and art are united in poetical expression. This is a combination from which a higher consciousness may begin a repeated development in a similar manner. That portion of humanity which has labored in the progress acquires a new comprehension. The delinquent ones continue the progress under changed circumstances.

Greek art marked a final possibility of man's mental growth. Beyond their refinement of what is known as classic detail of ornament the designer cannot go. Neither can mind exceed in their philosophical comprehension. Modern intellectual development is simply a repetition of their progress in the development of their reasoning powers. Owing to other circumstances facts are more varied, but mental power is not now any more comprehensive. Greek ornamental derivatives originated in the representations of material sensations. By discipline a state of involuntary exercise was arrived at in both the literal and illiteral branches of development. They were finally united in translating the Greek ideals of faith. This combination in poetry and sculptured architecture was a mental exhibition of their ideas of the one supreme power. From this apex of development the new and higher process of emotional growth began. The completion of the intellectual circuit made a higher plane available. The work proceeded upon that plane, and they who had not obtained full mental growth had additional labor to perform. The mentally perfect gradually disappeared with the disappearance of faith.

The higher experiences which the world entered upon nineteen centuries ago was emotional expression by its mastery and comprehension. It was the beginning of a power as much superior to the intellect as the mind is superior to the physical man. Gothic architecture and ornament is the natural expression of a progress of this new growth. Gothic art and all art, it must be remembered, is the opposite of religion, as commonly understood. The modern symphonic drama is its culmination, and bears the same relation to this new sphere of exercise as the Pantheon, created by the Greeks, did to their accomplishment. The old philosophical process, best represented then by Socrates, accompanies it as the natural mental condition of the present.

The principal orders of architecture are Mohammedan, the feminine; Grecian, the masculine; and Gothic, an expression of both. Roman, Romanesque, Byzantine and many other styles are variations upon the principal themes. The Eastern and the Greek schools of design have their points of departure. The Gothic form of architectural expression appeared in Europe with its detail already developed into architecture. All things have a first cause. If the origin of Gothic ornament is not in Europe it must be in some other country. If not on this earth, it must be on some other planet. Art is unconscious development, and cannot differ from the usual system; neither can it deceive. Even a study of the Chinese language in relation to architectural ornament will prove this same rule. Classic ornament began in the delineation of material sensations. Owing to a necessarily higher condition, Gothic ornament must have begun in a delineation of mental sensations. From this point development would finally arrive at the control of emotional expression in a distinct medium without the intervention of thought.

According to all authorities, the architecture and ornamentation of Central America is without precedent or connections. It had its isolated beginning and progress until the extinction of its practitioners. It is independent of the fundamental characteristics of other styles. The origin of Central American art is so undoubtedly recent that it must be the beginning of this superior plane of experience; the world as a whole never presents opportunities for degeneration; that is natural law. Only one opening is left here for a point upon which to attack the subject. The ornamental forms had their beginning in the illustration of mental facts or conditions first realized. Language was too imperfect a means of demonstrating the circumstance. Language fails when the emotions are stirred, and such was the case here in its primeval form. Through their emotions an influence acted upon their

minds, and their impressions were pictured in clay. The first erections may have been temporary, and afterward more or less permanent. Gradually they were adapted to use, and the means of expression became architecture with new decorations.

The ornamental motives of Central America are derived from figures of the Latin cross, the shepherd's crook, the fish, the stairs of ascent, and the reptile. The latter is a representation of an eel that once inhabited the waters of the neighboring seas. It is distinguished by a dorsal fin upon the head. In their representations it has the rattles of the rattlesnake. The trinitarian character of man or their deities is indicated in various manners. The representation of sound waves plays an important part, and under circumstances that indicate that interpretation. One rebus may read that a people divided are united by the voice of God. The cessation of tribal hostilities, a short time before the Spanish invasion, seems to have been under the influence of this idea. Their manner of offering human sacrifice by cleavage may also have been its corruption. All ideals are debased by mistaken religions. Taking the matter as a whole they were affected by Christian notions. So much for the original derivatives.

Literal developments in this case was imitative representation of nature, and finally conventionalization. The tooth ornament, beak-heads, and ball and star moldings of Gothic art were here invented. The cruder forms correspond to inexplicable characteristics of Irish architecture. The Norman detail with its nebule embellishments is a perfect continuation of the transatlantic ornaments. The pointed arch also has its beginning in pictorial use. The dates of execution assist in establishing the consecutive growth of this art from one country to the other.

The illiteral development of Central American architecture is the expression of the artist-sense, feeling. It is the underlying power in humanity, the control of which leads to emotional expression. It is the truth in æsthetics and the quality of character. The architecture of the North American Isthmus is dignified and serious. In pyramidal development, in stairs and terraces, a desire for attainment and ascent is expressed. The emotional expression of the pyramids of Egypt is concealment, here it is proclamation. They strove for a closer contact with that higher knowledge or sense that was dimly beginning in their consciousness. Their work abounds with that feeling that prompts an effort for greater height. Emotional influences control the mind, and thence the labor of the hand. Their work as a whole was under the influence of a longing to surmount. That is also the emotion of the Gothic cathedral: aspirational ascent.

Architectural ornamentation expresses the esoteric growth of man. He is not conscious of this until it bursts upon him after accomplishment. There may be more truth read from ornamentation than appears upon the surface.

Mohammedan, and then Greek, and finally the cathedral architecture flourish upon the purity of their original inspirations, even though one may seem comprehensively above the other. Modern art, in proportion to the successful adaptation of precedents to exigencies, expresses the sincerity with which humanity endeavors to approach the truths of life. That recovery is the mainspring which will begin the transformation of the coming world of thought and art. Man is slow in believing what is understood with difficulty. Truth is never proven so quickly as by those who try to disprove it. The fact of the origin of Gothic architecture can be better demonstrated by such as have the leisure for archaeological research.

NEW PUBLICATIONS.

USES OF COMPRESSED AIR. By Addison C. Rand. Cloth; 134 pages; with 94 illustrations from original photographs; price, \$1. The Republic Press, New York.

This interesting volume is said to be the only complete treatise on the uses of compressed air in existence. The author, Mr. Rand, is abundantly qualified to discuss the subject, as he is an experienced constructor of air compressors, and has made a personal study, supplemented by a liberal use of the camera, of all the various uses of compressed air as employed in this and foreign countries. To the reader who takes up Mr. Rand's little volume with the expectation of finding it a commonplace description of trade methods, there will come an agreeable surprise. Seldom have we seen a purely mechanical work so interesting. From introduction to finish it charms and enlightens the lover of invention and the student of mechanical contrivance. Scientific terms have been avoided, and the author has endeavored to describe the principal uses of air in common-sense language. The devices mentioned include the air lift pump for artesian wells, the air brake, railway gate motor, air locomotives and street railway motors, appliances for unloading cars and operating shops, tor-

pedo guns, transportation tubes, the air brush, icemaking and refrigerating, the pneumatic tire, and many other less familiar uses. But the author makes special mention of the fact that the most important application of compressed air in the past has been to rock drills in tunnels and mines, and that America can claim, at Hoosac Tunnel, the first general application of the rock drill. At Niagara Falls 7,250 feet of tunnel was excavated in six months, and in locations permitting the use of shafts at frequent intervals a tunnel ten miles in length can be constructed as quickly as that of one mile.

OUR ILLUSTRATIONS.

The illustrations other than photogravure in this number are from those presented in the Baltimore Courthouse Competition. The announcement of the building committee and the interesting report of Professor W. R. Ware is as follows:

ANNOUNCEMENT.

On June 1, 1894, Professor Ware sent to the Building Committee ten designs numbered 16, 20, 21, 24, 35, 37, 39, 41, 57, 72, accompanied with his report, which is hereto appended. On June 29, 1894, the committee determined that design No. 57 was, "on the whole," the most satisfactory solution of the problem submitted to the competing architects, and a telegram was sent to Professor Ware requesting that the envelope belonging to this design should be opened and the name therein communicated to the committee in order that the author might be appointed architect of the building "if, in their judgment and that of their professional adviser, they were warranted in so doing."

Owing to Professor Ware's absence from New York an answer was not received until July 2, when it was learned that J. B. Noel Wyatt and William G. Nöling, of Baltimore, practicing as Wyatt & Nöling, had submitted this design. On July 13, Messrs. Wyatt & Nöling were formally notified of their selection as architects of the new courthouse and of the readiness of the committee to execute an agreement with them in accordance with the provisions of the programme of instructions.

It has since been ascertained that the authors of the nine other designs, forwarded by Professor Ware, are:

- No. 16—Shepley, Rutan & Coolidge, of Boston, Chicago and St. Louis.
- No. 20—J. L. Wees & A. Guissart, of St. Louis.
- No. 21—Carrère & Hastings, of New York.
- No. 24—Van der Bent & Ross, of New York.
- No. 35—Whitney Warren, of New York.
- No. 37—D. Despradelle, of Boston.
- No. 39—Benson & Brockway, of New York.
- No. 41—Boring & Tilton, of New York.
- No. 72—De Witt Taylor Kennard, of Chicago.

On 1894, Professor Ware further reported that he had selected designs numbered as the five best among the Baltimore designs. The authors of these designs who will receive a premium of \$400 each, offered by the instructions, are:

- No. 3—Laferty, Poole & Sinton, 20 East Lexington street.
- No. 44—T. Buckler Ghequier, 227 St. Paul street.
- No. 57—Wyatt & Nöling, 301 North Charles street.
- No. 62—Joseph Evans Sperry, Central Savings Bank building.
- No. 73—J. A. & W. T. Wilson, 5 East Lexington street.

The ten designs submitted with Professor Ware's report as the best and the five premiated designs from Baltimore will, under the consent heretofore obtained from their authors, be publicly exhibited in the American Building, Baltimore, from July 30 to August 4 inclusive, between the hours of 10 A.M. and 5 P.M. Permission has also been given to THE INLAND ARCHITECT of Chicago, to publish the ten best designs.

As soon as practicable all of the designs will be returned to their respective authors, to whom the thanks of the Building Committee are hereby tendered.

FERDINAND C. LATROBE, Mayor,	ROBERT H. SMITH,
JAMES HODGES,	FRANK N. HOEN,
HENRY D. HARLAN,	FELIX AGNUS,
JAMES E. TATE,	AUGUSTINE J. DALRYMPLE,

Building Committee.

BALTIMORE, July .., 1894.

REPORT.

Of the seventy-nine designs sent in on April 9, only forty-one appeared on examination to demand serious consideration; the others were so obviously inferior that it would have been a waste of time to examine them in detail.

Of these forty-one, one showed a building of five stories and three mezzanines; eight of four stories and two or three mezzanines; thirty-two of three stories and, in general, two mezzanines.

Ten showed a height at the center of the eastern front of about one hundred feet, more or less; twenty of between a hundred and ten and a hundred and twenty, and the rest of about a hundred and twenty-five feet.

The total area covered was in general between sixty and sixty-five thousand square feet, with open areas varying in number from one to eight, and covering from five to ten thousand square feet. But in half a dozen of the designs, the space covered was reduced to sixty or even fifty thousand square feet. Some of the four-story designs had even as little as thirty thousand, but these were built with external areas, and were of the form of a cross, with two or three arms.

In respect of arrangement and accommodation, about half of these designs exhibited a central hall, giving access to the principal courtrooms. In the other half, there was no central hall, the public as well as the more private rooms being reached by corridors.

In ten of these the entrance was in the first story, access to it being gained by external flights of steps. In the others, the principal doorways were in the basement, but in ten of these large flights of steps immediately within led up to the main story.

Most of the designs afford good passage across the building in the main story, as required. In almost all the designs the most important courtrooms are lighted on opposite sides, as desired, but in only ten or twelve are all the courtrooms lighted in this way.

In point of style one-third of the exteriors may be said to be treated in the Roman, or Italian manner; another third, in some variety of French or Spanish renaissance. The rest are either Greek, or in that modern French style, which has the name of Neo-Grec. Only half a dozen of the whole eighty show any trace of Gothic, or other mediæval influence.

About a dozen or fifteen, if erected substantially as shown, would give a dignified and appropriate public building. The good plans are not so numerous, though almost all manage in one way or another to fulfill the requirements of the Programme of Instructions. The best plans do not in general go with the best elevations.

In cubic contents, the different designs present an extreme variation from less than four million cubic feet to more than ten. These greater dimensions characterize the designs which show the largest number of stories, and the greatest waste of space in halls and corridors.

The great difference of level between the east and west ends of the site has been met by the different competitors in different ways. Some have given their building a basement story at the western end, involving a double or even triple basement on Calvert street, and throwing up the main story to a great height above the ground; others have put the main story on the level of St. Paul street. In some of them there is a break in the design, the western end being a half story, or a whole story, above the eastern end.

The ten designs herewith submitted are those which in my judgment show the best plans, irrespective of the elevations, and the best elevations, irrespective of the plans, as well as those which show the best "all 'round" solution of

the problem, taking plan and elevation together. These ten designs are numbered 16, 20, 21, 24, 35, 37, 39, 41, 57, 72.

These ten designs fall into four groups, three of which show a central hall, giving access to the principal rooms, which are distributed around it. This seems at first sight the best arrangement.

In the first group, comprising numbers 16, 24 and 72, this hall extends to the basement, with the main doors in the basement story. In the second group, comprising numbers 20, 35 and 41, the central hall is entered in the first story, by doorways at the top of a flight of external steps. In the third group, comprising numbers 37 and 39, there is a basement entrance with a flight of steps immediately within, leading up to the central hall. The fourth group comprises numbers 21 and 57. There is no central hall.

I.

Of the three constituting the first group, in which the main entrance is on a level with the Calvert street sidewalk, numbers 72 and 24 are distinctly better in plan than No. 16.

DESIGN No. 72.—This design shows a basement and sub-basement, both above the level of Calvert street, and two high stories and a low one, above. The second story contains a mezzanine on the north and south sides.

In the basement is a commodious passage across the building from Lexington street to Fayette street.

In the sub-basement is a driveway for vans leading into a prisoners' yard.

The main entrance is into the sub-basement by a single door, and is level with the Calvert street sidewalk.

Immediately within is a flight of stairs leading up to the basement story. Small staircases on either side, and a grand staircase at the further end of a large central hall give access to the stories above.

There is a similar central hall open from the first story to the roof, and partially lighted by areas at the sides. (In this are eight elevators.)

In the first story there are two rear entrances on a level with St. Paul street, but no side entrances.

There are eight areas, each about thirty feet wide. The two at the eastern end are larger above than below, being partly occupied in the lower stories. The two at the western end seem larger in the first story than above.

In the first and second stories are three courtrooms, one large and two small, all admirably lighted by windows extending the whole length of the long sides of these rooms, and opening upon these areas.

In each of these stories are two or three other courtrooms, lighted upon one side only, which open upon the street. In the third story is the Supreme Bench, lighted upon opposite sides, and Circuit Court No. 2, lighted on one side only.

The seven larger courts are well placed and well lighted. The six smaller courts are inconvenient of access, and lighted only on one side.

The smaller and more private rooms are on the outer walls, lighted from the street; some of them are in a mezzanine above the second story. They are from twenty to twenty-five feet deep.

The Calvert street front shows a plain basement, with two stories of windows.

The first story also is treated as a basement, the principal order, with columns, entablature, and attic, occupying the second and third stories. This order is in the so-called Neo-Grec style, and is much too small, as well as too high up, to be an effective feature. The main doorway is also much too small.

The height over the main entrance is about a hundred feet. The building covers the whole lot, measuring about sixty-five thousand square feet; of this, about nine thousand is taken up by areas, or about fourteen per cent. The cubic contents is something over five and a half million cubic feet.

The scheme is well adapted to being built part at a time, in which case the grand staircase would probably have to be replaced by a temporary structure.

DESIGN No. 24.—This design shows a principal building toward the eastern end of the lot, with a wing of smaller dimensions, which constitutes almost a separate building, upon St. Paul street.

The principal building consists of a basement above the level of Calvert street, and three stories. The first and second stories are high, and contain mezzanines.

In the basement is a large central hall, but the passage across the building from Lexington street to Fayette street does not pass through this hall, but somewhat indirectly through corridors. There is no transverse passage in the first story, and there is no driveway for vans leading into a prisoners' yard.

The main entrance is into the basement through three doors a few steps above the level of Calvert street.

The main staircase is at the western end of the central hall. Smaller stairs inclosing elevators and near the entrance lead to the private end of the courts above.

The central hall is, in the stories above, confined to a small lobby between the main stairs and the Criminal and Superior Courts, from which corridors pass round the building. In this lobby are two elevators, and near the front of the building two others. In the first story is a rear entrance on the level of St. Paul street.

There are two open areas, 28 by 48 feet, which run the entire height of the building, and a small one between the main building and the addition, to light the stairs.

In both the first and second stories are three or four courtrooms, one large and two or three small. The large ones are lighted on opposite sides from the areas; the small ones from one or from two sides, from the street. In both stories of the western wing are two additional courtrooms, lighted from the street. In the third story is the Supreme Bench, lighted upon opposite sides from the areas.

The three principal courtrooms are conveniently placed, but the small ones all open upon corridors in common with the service rooms, and some of them, especially the Court of Common Pleas in the second story, are at an inconvenient distance from the main stairway.

The smaller and more private rooms are from twenty-five to thirty-five feet deep, and are situated on the outer walls in the two principal stories, and their mezzanines. They are lighted from the streets.

The Calvert street front shows a plain basement and first story, with a Corinthian order in the second, and an attic in the third. In the central portion of each front a larger Ionic order is carried through the second story and attic, and bears a pediment. The square central portion occupied by the large courts is surmounted by a dome which is not visible from the street, and is made no use of within. This design is one of the most dignified and appropriate of all those submitted.

The height over the main entrance is about ninety-five feet. The main building covers a square of two hundred feet. Of this, about 27,000 square feet is taken up by the areas, or about six per cent. The cubic contents is something over three and one-half million cubic feet, including the addition.

The additional courts required are accommodated in a wing only two stories high, measuring 80 by 120 feet, and connected with the main building by a double corridor which passes on either side of the main staircase. This scheme is particularly well adapted to being built part at a time.

DESIGN No. 16.—This design shows a basement on a level with Calvert street, lighted from sunken areas, with two high stories and one low one above. The first and second stories each contain a mezzanine floor. There is apparently a cellar or sub-basement extending under the whole of the building.

In the basement is a twelve-foot passage, running across the building from Lexington street to Fayette street. There is a small space for the prison van, opening directly upon Lexington street; this is in immediate connection with the male and female lockups, which are not well lighted. There is no prisoners' yard.

The main entrance into the basement is by a single door through the vestibule, on a level with the Calvert street sidewalk. Immediately within are steps which lead to a large central hall, which is open up to the first story mezzanine, and is covered with a glazed roof. A large staircase at the farther end leads to the first story, and four smaller staircases, each inclosing an elevator, give access to the stories above.

There is upon the first story a public corridor running around this hall. Above the hall there is a large open area lighting similar corridors in the upper stories.

In the first story, there is a single entrance on a level with St. Paul street, and in the basement is a side entrance, giving direct access to the first story, and to the Criminal Court by a flight of steps.

There is but one area, which is large and central, measuring 60 by 100 feet in its greatest dimensions. In the four corners of this area are disposed the four smaller staircases.

In both the first and second stories are three courtrooms; a large one in the front, lighted from one side, and two small ones lighted from two sides in the northwest and southwest corners. In each of these stories there are one or two other courtrooms, lighted from one side only; in the third story is the Supreme Bench, lighted from adjacent sides.

All the courts are lighted from the street, five of them receiving some additional light from the interior area through windows high up on the wall and behind deep galleries. The courtrooms are sufficiently accessible from the corridors and passages, but the main staircase does not lead to the main courts, which are at the opposite end of the building.

The smaller and more private rooms are disposed along the outer walls, and many of them are thirty or forty feet deep, and lighted only at one end. Some of these rooms are in the mezzanines of the first and second stories.

The Calvert street front shows four Ionic columns, surmounted by a pediment, beneath which is a somewhat inadequate doorway. The rest of the building shows piers or pilasters of the same order. The whole is crowned by a low attic, with a balustrade above. The whole is eminently suitable and dignified.

The height over the main entrance is about a hundred feet. The building covers only a part of the lot, being only two hundred and sixty feet long, and leaving an open space upon St. Paul street forty feet wide. This space is occupied by a sunken area giving light to the rooms of the basement, which is accordingly as large as the stories above.

The total area covered is about 52,000 square feet. Of this, 5,000 feet or about ten per cent is taken up by the central area. The cubic contents is nearly five million cubic feet.

This scheme is particularly well adapted to being built part at a time.

II.

Of the three designs, which constitute the second group, in which the Calvert street entrance is in the first story at the top of the flight of steps, No. 35 is distinctly better in plan than either 20 or 41.

DESIGN No. 35.—This design shows a basement, a high first story, with a mezzanine, a low second story and a third story mainly in the roof.

In the basement is an ample passageway across the building; this is practicable for vehicles, giving them access to four open areas, two of which are adjacent to the male and female lockups.

The main entrance upon Calvert street leads into the first story, up a wide flight of steps, where is a high porch, within which is a vestibule with small courtrooms on either side. Beyond is a central hall with two stairways on each side. Similar halls are in the second and third stories above. These are all lighted by areas at the sides. Near the entrance are two elevators. Two rear entrances are shown on the first story, entering on the level of St. Paul street. There is no side entrance above the basement.

There are six areas, square, and about forty feet across. In the first story are five courtrooms, in the second seven, and in the third is the Supreme Bench. These are of three different sizes, corresponding with the requirements of the programme. They are all lighted on opposite sides, and nine out of the thirteen are lighted entirely from internal areas. They are all directly accessible from the central hall.

The smaller and more private rooms are on the external walls, and are only sixteen feet deep. They are reached by corridors, which the public have no occasion to enter. The separation between the more public and the more private uses of the building is complete.

The eastern, or Calvert street front, shows a high basement, rusticated, with coupled windows. Above is a high story, with large round-headed windows and pilasters carrying a full Doric entablature, with broken pediments at the corners. Above this is a high attic, occupying the second story, which again carries broken pediments, straight and curved. The third story is in a low steep roof with small dormers, which seem insufficient to light it. But it has good sized windows upon the areas within.

The portico at the top of the steps is on a larger scale, a single order with a couple of Corinthian columns rising to the top of the second story, and a high attic above occupying the third.

The height of the main wall is only sixty-four feet, and that of the portico at the entrance only eighty feet. The top of the main roof is the same, and the higher roof that covers the central hall is only ninety-six feet to the top. The western third of the building is only two stories high and has no basement, and the cornice upon St. Paul street is only forty feet from the ground.

The building is set back about fifty feet from Calvert street, and measures accordingly only about 275 by 200 feet, or 55,000 square feet; of this nearly ten thousand square feet is occupied by areas, or nearly twenty per cent. Taking an average height of eighty feet, this makes the entire cubic contents but little over three and a half million cubic feet.

In plan, this design is distinctly the most simple and orderly, as well as one of the most convenient, and, so far as concerns the courtrooms, one of the best lighted. It is well adapted to being built part at a time, since the Criminal and Superior Courts could be made temporarily to occupy the western half of the central hall between the two middle areas. In cubic contents it is almost the smallest of any. But this advantage is gained by considerable loss of external dignity. The exterior needs further study.

DESIGN No. 20.—This design shows a basement, two high stories with mezzanines and a low story above. There is no transverse passage in the basement, but there is a driveway for vans leading to a prisoners' yard, and a corridor in the first story leading from Lexington street to Fayette street.

The main entrance is into the first story by a flight of exterior steps and through a single door. Within is a long central corridor, lighted by areas. The main stairs are placed in a double flight at the farther end of the corridor, where they somewhat obstruct the entrance to the principal courtroom.

There are four small stairways, one in each corner of the building. A transverse passage leads to the service corridors behind the courtrooms and to entrances upon Fayette street and Lexington street. There is also a rear entrance on the first story, on a level with St. Paul street. Four elevators are shown, two near each principal entrance.

There are four open areas, each about thirty-six feet wide. In the first and second stories the large courtroom is placed at the western end of the main corridor, and is lighted on opposite sides from areas. Four smaller courts open laterally from this corridor, and are lighted on opposite sides from areas and from the streets. These ten courts are well placed and well lighted, but there are two others, one in the northwest corner of the second story and one in the mezzanine above, which are poorly placed, and there is no Supreme Bench, unless the courtroom in the southwest corner of second mezzanine story is intended for this purpose.

The smaller and more private rooms around the outer walls of these stories and in mezzanines are lighted from the street. They are about twenty feet deep.

The Calvert street front presents a central mass ninety feet high to the top of the attic, with short wings thirty-four feet long and about seventy feet high. These wings and the side elevations, to which they conform, are designed on a somewhat smaller scale than the central mass. This consists of a high basement, chiefly occupied by steps and surmounted by colossal piers, carrying a very heavy cornice and attic. Between the piers are smaller columns, forming a sort of triple portico or shallow loggia. This must cut off considerable light from the courtrooms in the second story. The architectural treatment, which exhibits a somewhat extreme example of the Neo-Grec style, does not commend itself. The building looks clumsy and overloaded.

The main lines of the front are set back about ninety feet from Calvert street, reducing the size of the building to 260 by 200 feet, or 52,000 square feet.

The open areas occupy about eighty-two hundred square feet, or sixteen per cent.

The total cubic contents is about four and a half million cubic feet.

DESIGN No. 41.—This design shows a basement on the level of Calvert street, with a sub-basement below and two high stories above.

At the corners the building is only two stories high, but in the center is a third story of cruciform plan, above which is a fourth story, which runs east and west. There seem to be no mezzanines.

In the basement is a driveway through the building. It is contiguous to the lockup and to the prisoners' rooms.

The main entrance enters the first story by three doors within a four-columned portico at the top of a flight of steps. These doors lead into a large vestibule, which extends across nearly the whole front. A central corridor leads to a similar entrance from St. Paul street. From this corridor open three courtrooms, lighted from opposite sides. Additional courtrooms are in the northwest and southwest corners upon St. Paul street, lighted from three sides.

There are five courtrooms in the second story, over those below, and two others, both of which are lighted only on one side. The Supreme Bench is in the third story, running up into the fourth. The more private rooms, which are not well separated from the more public ones, are from twenty to thirty feet deep.

There are two staircases at each end of the main corridor and near the entrances. In the middle of the north and south fronts are other staircases giving access from the driveway below. There are no other side entrances.

The center of the Calvert street front is recessed forty feet. In this recess stands the portico, above which rises a high attic, crowned by a gable. This attic is nearly a hundred and ten feet high to the eaves. The eaves of the north and south fronts are ninety feet from the ground, and those of the rest of the building, seventy-five.

Except the recesses on the east and west fronts, the building covers very nearly the whole lot, measuring about fifty-three thousand square feet.

The cubic contents seems to be something over four and a half million cubic feet. This scheme, which in its general composition is one of the most picturesque and effective of all those presented, is fairly well adapted to be built part at a time.

III.

The third group comprises numbers 37 and 39, in which the entrance is in the basement, with a flight of stairs immediately within, leading up to the first story.

DESIGN No. 37.—This design shows a basement and sub-basement both above the level of Calvert street, and three high stories above. The basement, first and second stories all contain mezzanines on four sides.

In the sub-basement is a triple passage, which passes across the building, and a driveway for vans leading into a prisoners' yard.

The main entrance is through a single, but large, doorway, on a level with the sidewalk and the basement.

An ample vestibule incloses a wide flight of steps, leading up to the spacious central hall of the basement, whose lateral arms reach to Lexington street on one side and to Fayette street on the other. There are eight elevators, two in each corner of the hall, and at the western end are two large staircases, with a passage between them which leads to the St. Paul street entrance. There is a similar central hall above, open from the first story to the roof, and partly lighted by areas at the sides.

In the first story is a central entrance, on a level with St. Paul street, but there are no side entrances above the basement.

There are four areas, each about forty-two feet wide and one hundred feet long.

In both the first and second stories there are five courtrooms, one large and four small, all admirably lighted upon opposite sides by windows extending the whole length of the long sides of the rooms and opening upon these areas over the roofs of long narrow corridors. In the third story and in the basement the Supreme Bench and two other courtrooms are lighted in the same manner.

All the courts are well placed and their general arrangements are convenient for the public service.

The smaller and more private rooms are on the outer walls, with independent means of access, and are well separated from the more public thoroughfares. They are lighted fairly well from the street and are about sixteen feet deep throughout.

The Calvert street front shows a low sub-basement, a high basement and five ranges of windows above, four of which are in the height of colossal pilasters, the fifth in a sort of frieze, above which a thin cornice crowns the wall. At the entrance still larger piers run up to the height of all seven stories, carrying a similar frieze and cornice, but on a still larger scale, a hundred and forty feet from the ground. The whole is in the modern French style.

This design is admirable in the general features of the plan, which has a great resemblance to that of No. 35, but it exhibits, to my mind, both in plan and elevation, but little taste and judgment in respect to its architectural treatment.

The height of the main cornice is about one hundred and twelve feet. The building covers the whole lot, measuring about 65,000 square feet. Of this, about 15,400 feet is taken up by open areas, or nearly twenty-five per cent. The cubic contents is about seven and a half million cubic feet.

This scheme is well adapted to being built part at a time, in which case the grand staircase would probably have to be replaced by a temporary structure.

DESIGN No. 39.—This design shows a basement on a level with Calvert street, and three high stories. The first and second contain mezzanines over a portion of the north and south sides.

There is an entrance for vans in the basement.

The main entrance is into the basement by a single door. Immediately within is a flight of steps leading to a long central hall in the first story, which is lighted from the top. This central hall is cruciform, and has an entrance on the level of St. Paul street, and small side entrances from Lexington and Fayette streets.

The principal stairways, each inclosing three elevators, are in the corners, and are removed as far as possible from the entrance. Four smaller stairways are placed on either side of the transverse portion. Only the exterior rooms with corridors and the transverse central portion extend into the upper stories.

There are accordingly two large areas above the first floor, each 108 by 90 feet; under which is the long portion of the hall, four semi-circular courtrooms opening therefrom, and eight small areas or light-wells of irregular shape.

Three of these semi-circular rooms contain the smaller courts, the principal court being at the eastern end of the hall, lighted on one side from the street.

The principal court in the second story is above that in the first, but is entered at the ends, and is lighted on opposite sides from the street and from the area.

There are also in this story three smaller courts lighted on two sides, and two lighted on one side from the street, all opening from corridors.

The Supreme Bench is in the southeast corner of the third floor, lighted on two sides from the streets.

The smaller and more private rooms, from twenty-five to thirty feet in depth, are on the outer walls, lighted from the street, and opening upon the corridors; some of them are in mezzanines.

The Calvert street front shows a rusticated basement with a plain small door in the center. The first story also is treated as a basement, upon which rest pilasters, running through the second and third stories, and bearing the main entablature, with a pediment over the central pavilion.

The face of these two basements is slightly beveled. The building has steep roofs.

While the plan has little to recommend it, the composition of the façades, both on the front and on the sides, is among the most elegant and simple of all those submitted.

The height over the main entrance is about one hundred feet. The building covers the whole lot, measuring about 65,000 square feet; of this about 1,600 square feet is taken up by areas in the basement and first floor; and about 18,000 feet in the second and third, or twenty-seven per cent.

The cubic contents is about five million cubic feet.

The scheme is fairly well adapted to being built part at a time.

IV.

The other two designs, No. 57 and No. 21, are examples of the treatment which employs no central hall, but gives access to all parts of the building by corridors and passages. It is a natural result of this disposition, as may be seen in these examples, that there is no obvious separation between the parts of the building intended for public use, and those devoted to the more private service of the officers of the courts. These two designs have been selected from the designs of this class because of the excellence of their external treatment.

DESIGN No. 57.—This design shows a basement, sub-basement and three good stories above. The first and second stories have mezzanines.

There is no direct passage across the building, either in the basement or in the first story. There is a driveway for the prisoners' van in the sub-basement, convenient to the lockups in the basement. There are also, in the basement, side entrances with stairs leading up to the floor above.

The main entrance is into the basement by a triple doorway, a few steps above the Calvert street sidewalk. Within is a long transverse vestibule, containing three staircases. There is another entrance into the first story from St. Paul street, near which are two staircases.

The middle of the building is occupied in the first story by four areas, and four courtrooms, with their dependencies. These are surrounded by a wide corridor, which gives access to all parts of the building. There are two additional courtrooms at the western end. In the second story are two courtrooms, with their dependencies, in the middle of the building, two at the eastern end and two at the western. The Supreme Bench is placed in the third story, directly over the entrance.

The smaller rooms on the outer walls are twenty feet deep.

The distinctive feature of this design, as is plainly shown by the section, is that the open areas are much larger in the upper stories than in the lower, so that the mass of rooms in the center of the building is extremely well lighted.

Ten of the courtrooms are lighted on opposite sides, the other three on adjacent sides.

The exterior shows a Corinthian order, raised upon a double or triple basement. The main cornice is well managed, and the colonnade and portico above it form a striking and dignified feature. The building covers the whole lot. It is well adapted to being put up part at a time.

Although this design lacks the imposing feature of a central hall, the entrance vestibule, with the staircases adjoining it, form a dignified and effective combination.

DESIGN No. 21.—This design shows a main building, nearly square, with additional accommodation in the rear built around a large open yard on the level of St. Paul street.

In the main building is a basement slightly above the level of Calvert street, two principal stories, which have different levels at the eastern and western ends, and a third story which is lofty in the center.

The additional portion extends only as high as the second story.

The first and second stories have mezzanines on the north and south sides.

In the basement is a passage across the building from Lexington street to Fayette street.

The entrance for vans is into an open yard in the rear, from which the prisoners descend to the basement.

The main entrance is into the basement through five ample doorways, three of which enter a vestibule with stairways to the right and left, and two lead to the corridors.

There are two smaller stairways surrounding elevators, near the side entrances, and two more, midway, go only to the first floor.

There is a flight of stairs leading from the yard upon St. Paul street to the rear level of the first floor.

There are four areas in the main building only nineteen feet wide, besides the rear yard, 90 by 60 feet.

In the first floor there are five courts, one large and two smaller in the main building, with two others in the additional portion. Two are lighted on opposite sides from the narrow areas, two on two sides from the street and one on one side from the street.

The second story courts are the same, with a sixth, lighted on one side from the street. In this story the lobby before the principal court disappears, and the doors open on a seven-foot corridor, at some distance from the stairways.

The Supreme Bench is in the central portion of the third floor, lighted from opposite sides.

The smaller and more private rooms are on the outer walls of the main stories and mezzanines. They are from twenty to forty feet in depth.

The Calvert street front shows a rusticated basement with large windows and five large doors in the central feature, which slightly projects.

Upon this base rests a two-story Corinthian order, bearing the main cornice and an attic. The central portion above the doorways is richly treated with columns, between which and below the windows are a species of pedestal in front of which are statues.

The plan has little to commend it, but the façade is pleasing and dignified.

The height over the main doorway is something over one hundred feet.

The building covers the whole lot, measuring about 65,000 square feet; of this 9,400 feet is taken up by areas, or about fourteen per cent.

The cubic contents is something over five million cubic feet.

The scheme is well adapted to being built part at a time.

Although no one of these designs appears to be, as it stands, perfectly satisfactory in respect both of plan and elevation, it will, in my judgment, be practicable to reach a perfectly satisfactory result, if a design can be found that at the same time shows a convenient arrangement of the rooms and inspires confidence in the professional resources of the author, so that he may fairly be trusted, with further study, to produce a satisfactory exterior.

If this cannot be done, the committee may reach a satisfactory conclusion by selecting a good plan of which the elevation is unsatisfactory, and a good elevation which goes with an inferior plan, with a view of combining the two in the hands of that one of the two authors who inspires the most confidence in his capacity to effect a successful result.

NEW YORK, June 1, 1894.

Photogravure Plate: Residence of W. I. Clark, La Grange, Illinois. Frank L. Wright, architect.

PHOTOGRAVURE PLATES.

Issued only with the Photogravure edition.

Old St. Peter's Church, Philadelphia.

Interior Old St. Peter's Church, Philadelphia.

Residence of H. A. Blair, Chicago. Charles S. Frost, architect.

Palmhouse and Stable of George M. Pullman, Chicago. S. S. Beman, architect.

Residence of George H. Mitchell, Hinsdale, Illinois. Shepley Rutan & Coolidge, architects, Chicago.

Residence of John A. Lynch, Chicago. Jenney & Mundie, architects. A plate showing entrance is also given.

Omission.—The two views of Art Museum at the Stanford University, Palo Alto, California, published in our July number, were designed by architects Percy & Hamilton, San Francisco, Cal.

ASSOCIATION NOTES.

NATIONAL SCULPTURE SOCIETY.

The following circular has been issued by the National Sculpture society to sculptors and artist-artisans :

37 WEST TWENTY-SECOND STREET, NEW YORK, April 1, 1894.

The National Sculpture Society wishes to announce that it will hold its second annual exhibition of sculpture during the coming midwinter.

It makes this announcement now to give artists time to prepare for it.

The unexpected success of the last exhibition, which brought together works from St. Louis, Chicago, Cincinnati, Pittsburgh, Philadelphia, Worcester, Milton, Boston and Paris, as well as from Brooklyn and New York, justifies the belief that the next exhibition will be even more successful.

The date, place and conditions of holding this exhibition will be announced in October.

A jury of the society will pass upon all entries.

Works which have been shown at a public exhibition in New York during the decade 1884-1894 will not be accepted. All other works are eligible.

As before, large space will be given to all branches of art in which form is a factor, such as the work of the lapidary, medalist, wood-carver, ivory-carver, ceramist, glass-worker, iron-forger, gold, silver and copper smith, terra cotta worker, etc.

It is hoped artists working in such lines will take special pains to make this department a success.

Cost of transportation to and from gallery will be at the expense of the artist. Cost of handling in gallery will be assumed by the society.

As an encouragement of ideal sculpture for the household, the society contemplates selecting, by a majority vote, the best statuette suitable for bronze reproduction, and offering a limited edition to its members and friends on subscription. The details and conditions of this statuette competition will be given in the October announcement.

It is hoped that sculptors and artist-artisans will, at their earliest convenience, inform the secretary of the society of the nature of the works they intend sending, and the exact dimensions of such objects.

F. WELLINGTON RUCKSTUHL, Secretary.

The executive council consists of—J. Q. A. Ward, president; Richard M. Hunt, first vice-president; Richard W. Gilder, second vice-president; Charles De Kay, treasurer; F. Wellington Ruckstuhl, secretary.

MOSAICS.

AN almost immediate demand has sprung up for the new Tiffany enameled brick, the company having shipped quantities of them to several adjacent states, and as far east as Pennsylvania. They will also be used in the new Hale building in this city. We are informed that the contract of the Tiffany Company for enameled brick for the Marquette block is for between 125,000 and 200,000, instead of "several thousand," as inadvertently stated in a recent issue.

THE new illustrated catalogue of the Empire Fireproofing Company, of Pittsburgh and Chicago, covers the subject of fireproofing in every particular. Floors, ceilings, partitions, roofs, furring, lathing, column and beam coverings, floor deafening, etc., etc., are fully illustrated and described. Their new End Construction Arch differs from any other in use, the tiles being so made as to allow one to lap over the other, making it absolutely impossible for any of the tiles to slip down. They also manufacture hollow tiles of various sizes for segmental arches where great strength is required. The variety of partition work manufactured by this company is surprising. It varies from the 3-inch hollow partition used largely for insulating walls to the standard 6-inch partition of approved pattern. The Empire Fireproofing Company also manufacture and keep in stock terra cotta goods of all kinds and sizes, as also vitrified salt-glazed sewer pipe, wall coping, chimney tops, flue linings, etc. Their extensive factories are located at Empire, Ohio, and Brazil, Indiana.

BUILDING OUTLOOK.

OFFICE OF THE INLAND ARCHITECT, }
CHICAGO, August 10, 1894.

— Quite a number of favorable trade symptoms have manifested themselves during the past few days; but builders, architects, engineers, contractors and manufacturers are not over-well pleased with the results of seven months of this year. Considering the obstacles overcome there is no ground for discontent. The long depression has created necessities in every branch of production, which will develop a demand that will be felt in every part of the country. Enormous crops seem assured, but farmers and planters are faced with the lowest prices ever known. There is a vague feeling that these low prices are caused by shrewd financial manipulation, a suspicion which, if demonstrated to be a fact and a truth, would quickly intensify and strengthen the grumbling discontent of the great body of producers everywhere. Regarding actual trade, manufacturing and industrial conditions, it is proper to say that there is a moderate improvement, that prices continue at their lowest, that new enterprises are entered upon with extreme prudence, that enterprise, while alert and anxious, is prudent and even fearful. The conditions of the past year have not been broken, but there are evidences of a change, the chief of which is the depleted condition of yards, bins, shelves and warehouses. A year or more ago, manufacturers, railroad men and business men generally began to slow down, and if they have ceased to do so it is only very lately. The feeling is abroad that there is danger of pursuing this conservative policy to extremes and that a reaction of moderate dimensions is probable within a month or two. There is more building being undertaken, more manufacturing done. Shops are busier. Our local steel and lumber markets show that large requirements have been quietly covered within two weeks. In eastern centers the same tendency is noticed. Prices are phenomenally low, money is phenomenally cheap, but, outside of certain channels, as hard to get as when more abundant. There is a vast volume of business awaiting the signal gun. But while all this is true, it would be unwarranted to expect a sharp expansion of trade, for several reasons. The country has entered upon an era of permanently low prices. It is too soon to borrow trouble as to what organized labor will do next year.

This much can be said, that with compactness and force of organization comes a more conservative management and line of conduct. There are evils to be removed, and we have a thoroughly aroused public intelligence engaged in this work. Midsummer finds us better equipped for the conditions now facing us than we were six months or a year ago.

SYNOPSIS OF BUILDING NEWS.

Architects are invited to furnish for publication in this department monthly or occasional reports of their new work before the letting of contracts. Reports of buildings costing less than \$5,000 are not published.

Chicago, Ill.—Architects Curry & Foster: Are working on plans for the Industrial School for Girls, to be erected at South Evanston; it will be three-story and basement, 45 by 76 feet in size, with four wings 45 by 74 feet each; it will be constructed of pressed brick, stone and terra cotta, and all the sanitary and modern improvements; the design shows a beautiful building.

Architect W. S. Smith: For Charles Capper, a two-story residence; to be erected at Beverly Hills; it will be of frame with stone basement, have all the modern improvements, furnace, etc.

Architect L. T. Shipley: For R. S. Martin, on Campbell avenue near Armistage avenue, a two-story and basement flat building, 24 by 64 feet in size; to be of pressed brick and stone front, have all the sanitary improvements, furnaces, etc. For D. S. McMullen, at Evanston, a two-story, basement and attic residence, 42 by 61 feet in size; to be of frame with stone basement, have hardwood interior finish, electric light, hot-water heating. For R. B. McMullen, at Evanston, remodeling residence; new plumbing, hardwood finish, gas and electric fixtures.

Architect H. R. Wilson: For William Best, at Forty-fourth street and Drexel boulevard, a three-story residence, 28 by 90 feet in size; to have a stone front, hardwood interior finish, electric light, hot-water heating, etc. For Albert Barnes, at Decatur, Illinois, a two-story, basement and attic residence, 34 by 57 feet in size; to be of frame with stone basement, have hardwood interior finish, furnace, etc.

Architects Dixon & Brooks: For Charles F. Stewart, three two-story residences, 50 by 65 feet in size; to have stone fronts, hardwood interior finish, the modern sanitary improvements, furnaces, etc.

Architect Niels Buck: Made plans for four two-story flats, to be erected on Paulina street and Woodside avenue; to be of pressed brick and stone fronts, have all the sanitary improvements, mantels, gas fixtures, furnaces, etc. For John Riddell, a two-story frame flat building, to be erected at Burlington street, Cuyler; to have brick basement, the sanitary improvements, mantels, gas fixtures, steam heating, etc. Also, made plans for a two-story and basement store and flat building, 27 by 65 feet in size; to be built at the corner of Roscoe boulevard and Perry street. Also, making plans for a two-story residence, to be erected at the corner of Paulina street and Belleplaine avenue.

Architect John P. Hettinger: For J. P. Brice, a three-story store and flat building, 25 by 90 feet in size; to be erected at West North avenue near Humboldt Park; to be of stone front, have pressed brick on the side, all the modern sanitary plumbing, mantels, gas fixtures, etc. Also, made plans for remodeling three three-story houses on West Harrison street near Leavitt street; new plumbing, mantels, etc.

Architect W. J. Van Keuren: Made plans for addition to Grace Episcopal Church, at Oak Park. Also making plans for a two-story flat building, 30 by 53 feet in size; to be erected at Austin, for A. J. Sweeney; to have all the sanitary improvements, gas and electric fixtures, etc.

Architects Bell & Marble: For D. Hequembourg, on Fullerton avenue, near Halsted street, remodeling residence; will put on new front, rear and sides, new plumbing, gas fixtures, mantels, heating, etc. Also making plans for six four-story flat buildings, 25 by 70 feet each; to be erected on Ashland avenue and Polk street; to have stone fronts with carved ornamentation, hardwood interior finish and mantels, gas and electric fixtures, etc. For A. W. Hester, at Arlington place, a three-story residence, 33 by 50 feet in size; to have a stone front, gable roof, hardwood finish, mantels, gas fixtures, combination heater, etc.

Architect G. W. Maher: For A. B. Towers, at Newport avenue, a two-story basement and attic residence, 34 by 65 feet in size; the first story to be of Darlingston sandstone and the rest of frame; to be in the Colonial style of architecture.

Architect E. M. Newman: For W. Walkup, at 688 Fullerton avenue, a three-story flat, 25 by 90 feet in size; to be of stone front, have all the improvements, mantels, furnace, etc.

Architect Alfred Smith: For C. F. Unrath, at Adams street, near Garfield Park, a three-story and basement residence, 32 by 77 feet in size; to have a stone front, hardwood finish, mantels, all the modern sanitary improvements, etc.

Architects Ruehl & Gatterdam: For Anton Hofherr, a two-story, basement and attic residence, 25 by 65 feet in size; to be erected on Calumet avenue, near Fifty-fourth street; to be of stone front, have all the modern sanitary plumbing, mantels, etc.

Architect H. G. Fidelke: For W. K. Gore, two two-story residences, to be erected at Forty-eighth street, near Vincennes avenue; to be of pressed brick and stone fronts, have the modern sanitary improvements, electric and gas fixtures, hot-water heating etc. For John Lubeck, on Ione place, near Vincennes avenue, a three-story flat building; to be of pressed brick and stone front, have sanitary improvements, mantels, etc. For same owner on Forty-eighth street, near Vincennes avenue, two two-story residences; to have stone fronts, all improvements.

Architect J. A. Thain: For D. E. Brush, at 4415 Michigan avenue, a two-story, attic and basement residence, 30 by 80 feet in size; to have a stone front, hardwood finish and mantels, gas and electric fixtures, hot-water heating, etc. For Leo Strauss, on Prairie avenue, near Twenty-ninth street, remodeling residence; will put in new plumbing, gas fixtures, marble and mosaic work, painting, etc. For Peter Hayden, at 45, 47 and 49 Lake street, remodeling building recently burned; will put in new plumbing, gas fixtures, elevators, steam heating, etc.

Architect H. M. Hansen: For Jacob Strom, at 1509 Oakdale avenue, a three-story and basement flat building, 25 by 69 feet in size; to have a stone front and porch, all the modern plumbing, gas fixtures, etc.

Architect Julius Speyer: For John O'Connor, at 1533 West Monroe street, a three-story flat building, 25 by 90 feet in size; to have a raindrop stone front, hardwood finish, mantels, gas fixtures, steam heating; cost \$15,000.

Architect George Grussing: For J. S. Cally, at 897 Walnut street, a two-story and basement flat building, 24 by 65 feet in size; to have a stone front, the sanitary plumbing, mantels, gas fixtures, furnaces, etc. For John Mills, on Adams street, a two-story and basement flat building, 25 by 67 feet in size; to be of stone front, have all the improvements, ornamental grills, furnaces, etc.

Architects Huehl & Schmid: For William Schick, on Burlington street, near Wrightwood avenue, three two-story flats, 72 feet front by 64 feet deep; to be of stone front, have hardwood finish and mantels, gas and electric fixtures, modern plumbing, etc.

Architect Joseph Bettinghoff: For Mrs. Barbara Mark, on the northwest corner of Mohawk street and north avenue, remodeling three-story and basement store and flat building; the interior will be taken out and rebuilt; the attic finished up and new plumbing, mantels, gas fixtures, etc., put in.

Architect William Strippleman: For T. J. Sage, a two-story flat building, to be erected on Adams street near West Fortieth street; to be of stone front, have the sanitary plumbing, gas fixtures, laundry fixtures, mantels, etc.

Architects Flanders & Zimmerman: For Joseph Plummer and Walter Green, two two-story residences, 30 by 45 feet in size; to be built at Glencoe; to be of frame with stone basement, have the best of modern plumbing, hardwood interior finish, mantels, gas and electric fixtures, furnaces, etc. For Judge Clifford, at 1720 Wabash avenue, a four-story store and flat building, 25 by 90 feet in size; to have a stone front, hardwood finish, the modern sanitary

plumbing, steam heating. For J. M. Coleen, at 4737 State street, a four-story store and flat building 25 by 90 feet in size; to have a pressed brick and stone front, modern plumbing, electric light, steam heating.

Architect W. H. Lamson: For H. L. Wheatley, a three-story store and flat building, 40 by 125 feet in size; to be erected at the corner of Addison and Commercial streets; to be of pressed brick and stone, have all the modern sanitary arrangements, gas fixtures, mantels, steam heating, etc.

Architects Faber & Pagels: For J. Hebert, on North Halsted street, a four-story and basement apartment house, 66 by 90 feet in size; to be of stone for the first story and the rest of pressed brick with stone trimmings, galvanized iron bays and cornice; all the modern sanitary improvements, mantels, gas fixtures, laundry fixtures, etc.

Architect O. L. McMurray: Making plans for a two-story and basement school, 40 by 68 feet in size; to be of pressed brick and stone front, have plumbing, furnace, etc. For F. F. Noleman, a two-story basement and attic residence, 32 by 53 feet in size; to be erected at Centralia, Illinois; to be of frame with stone basement, have cypress interior finish, mantels, gas fixtures, furnace, etc. For Prof. Fernando Sanford, a two-story basement and attic residence, 34 by 56 feet in size; to be erected at Palo Alto, California, for the Leland Stanford University; to be of frame with stone basement, have hardwood interior finish and mantels, the best of plumbing, electric fixtures, hot-water heating, etc.

Architect W. L. Klewer: For C. H. Bilson, a two-story store and flat building; to be erected at the corner of Robey street and Lawrence avenue; to be of pressed brick and stone front, have all the modern plumbing, mantels, gas and electric fixtures.

Architect D. A. Lapointe: For C. J. Magee, at the corner of Fulton street and St. Louis avenue, a three-story and basement flat building, 50 by 106 feet in size; to be of pressed brick and stone front, have hardwood interior finish and mantels, gas and electric fixtures, laundries, etc. For F. H. Hebbard, at Winchester avenue south of Ogden avenue, a two-story and basement barn, 55 by 72 feet in size; to be of brick construction, have the modern conveniences, also ninety-eight stalls.

Architect F. W. Fitzpatrick: For Mrs. Tourtellotte, on West Adams street between Forty-third and Forty-fourth streets, a two-story flat building, 50 by 67 feet in size; to have a stone front, all the modern sanitary conveniences, gas fixtures, ranges, fireplaces, mantels, electric wiring, furnaces, etc.

Architect D. S. Pentecost: For T. C. Will, a two-story residence, 25 by 42 feet in size; to be erected on Hiawatha avenue, La Vergne, Illinois; to be of pressed brick and stone front, have all the sanitary improvements, mantels, gas fixtures, hardwood interior finish, laundry arrangements, furnace. For A. H. Darrow, southwest corner of Monroe and Campbell streets, remodeling a three-story residence, 48 by 50 feet in size; pressed brick and stone front, sanitary plumbing, mantels, electric wiring, hot-water heating.

Architect J. M. Hoskins: For Mrs. E. J. Eaton, at 855 Warren avenue, a three-story flat building, 25 by 72 feet in size; to be of Portland stone front, have all the modern plumbing, gas fixtures, electric wiring, mantels, steam heating. Also for two-story and basement flat building, 25 by 68 feet in size; to be erected on Fulton street, stone front, sanitary plumbing, mantels, gas fixtures, etc.

Architects Elmendorf & Park: For J. S. Lamb, on Park avenue east of Homan avenue, a two-story residence, 25 by 65 feet in size; to be of stone front, have hardwood interior finish, mantels, gas and electric fixtures, ranges, fireplaces, the best of plumbing, furnace, etc. Also made plans for a two-story flat building, 23 by 54 feet in size; to be erected at Lexington street west of Garfield boulevard. To be of stone front, have all the modern plumbing, mantels, gas and electric fixtures, furnaces, etc.

Architect E. J. Nichols: For Charles Swanson, at 81 Walnut street, a three-story and basement flat building, 25 by 52 feet in size; to be of pressed brick and stone front, have the sanitary improvements, gas fixtures, mantels, furnaces, etc.

Architects Perkins & Selby: Have completed drawings for the ten-story "Temple of Music," to be erected on Van Buren street between Wabash avenue and Michigan avenue. It will be of pressed brick and terra cotta front, of fireproof construction, have hardwood finish, marble, mosaic and tile work, steam heating, electric light, elevators and all the necessary conveniences; the cost will be about \$200,000. It will be used for musical purposes exclusively, excepting a recital hall occupying most of the first and second stories which will be used on Sunday mornings as a church by the Swedenborgian society. This society will also occupy offices in the building. The hall will be one of the finest and best adapted to its purposes of any in the country and will have accommodation for five hundred people. The first floor will have two stores, one on each side of the entrance. The upper stories will be used for studios. The partitions will be made soundproof, and by special methods of construction sound will be prevented from penetrating into the public halls. The old Swedenborgian church now on the ground is being torn down and building will be commenced as soon as the ground is clear.

Architect Karl L. Lehman: For Oppedale & Urheim, at 935 West Division street, a three-story flat building, 24 by 62 feet in size; to be of stone front, have modern plumbing, mantels, gas fixtures, hot-water heating, etc.

Architect L. G. Hallberg: For George Straith, a two-story, basement and attic residence, 28 by 53 feet in size; to be erected at Birchwood Beach; it will be of handsome stone front, have hardwood interior finish and mantels, gas and electric fixtures, hot-water heating, etc.

Architect R. W. Dahlgren: For M. Swanson, a three-story flat building, 24 by 60 feet in size; to be erected at Buckingham Place; to have a neatly designed stone front, hardwood interior finish and mantels, gas and electric fixtures, laundries, steam heating, etc.

Architect E. H. Turnock: For H. C. Seaman, on Ione Place near Forty-ninth street, between Vincennes avenue and Grand boulevard, two two-story residences; to have very pretty stone fronts, hardwood interior finish and mantels, the best of modern plumbing, gas fixtures, heating, etc. For Samuel Myers, at Highland Park, a two-story residence, 35 by 50 feet in size; to be of frame construction with stone basement, have hardwood interior finish, mantels, gas fixtures, sanitary plumbing, laundry fixtures, furnace. For Kentland Improvement Company, a two-story hotel, 48 by 104 feet in size; to be of pressed brick and stone front, have the modern sanitary improvements, gas fixtures, steam heating, etc.

Architects Goudie & Hoffman: For Dr. John W. Wirth, at Madison avenue and Seventy-first Place, a two-story store and flat building, 50 by 65 feet in size; to have a front of pressed brick with stone trimmings, mantels, gas fixtures, sanitary plumbing, etc. Also making plans for a two-story flat building, 26 by 46 feet in size; to be erected at the corner of Leland avenue and West Ravenswood Park, Ravenswood; to be of pressed brick and stone front, have sanitary plumbing, mantels, gas and electric fixtures, furnaces, etc.

Architect J. J. Egan: Is completing drawings for the Home for the Aged, to be erected on the northwest corner of Fifty-second street and Prairie avenue, for the Little Sisters of the Poor; it will be a handsome building, 140 by 120 feet in size, four stories and cellar; the fronts will be of pressed brick and stone, the interior to be finished in oak, with marble wainscoting, etc. All the latest improvements will be put in, such as electric lighting and steam heating. It will contain a chapel 75 by 30 feet in size and 30 feet high, also dormitories, offices, etc. Accommodations will be provided for three hundred, besides necessary accommodations for the Sisters.

Architect F. R. Schock: For Norton Brothers, at Maywood, a two-story factory, 243 feet square; to be of common brick with red pressed brick and terra cotta trimmings; to be of mill construction; this will be the most complete building of its kind in the country; in the center will be a court eighty feet in size; also will have buildings for electric light plant, engines, boilers, dynamos, etc.; steam heating, pumping works, water towers, etc. Same architect made drawings for a semi-detached two-story residence, 75 by 40 feet in size; to be erected at Grand boulevard near Forty-eighth street, for Mrs. H. G. Woodward; to be of Roman brick with St. Lawrence marble trimmings, have hardwood interior finish, electric light, hot-water heating, etc.

Architect Otto A. Kupfer: For Fred Grunst, a three-story and basement stone front flat building, 21 by 54 feet; all improvements. For Mrs. M. Roehl, a three-story and basement stone front flat building, 25 by 56 feet. For the German Evangelische Friedens Gemeinde, of Blue Island, Illinois, a brick and stone church and schoolroom, 34 by 66 feet; tower and spire to be 100 feet

high; to have electric lighting, furnace heating, plumbing, etc.; cost, \$10,000. For Mr. Fred Jebens, at Blue Island, Illinois, a two-story and basement stone front, store and residence, brick building, 26 by 62 feet, on South Western avenue; to have galvanized iron bays and cornice, steam heating, electric lighting and sanitary plumbing; cost, \$6,500. For William Hirsch, a three-story and basement stone front, residence and flat building, 25 by 68 feet, on Garfield boulevard; to have all modern improvements, gas lighting, steam heating, cement and tile floors, mantels and sanitary plumbing; cost, \$12,000.

Architect C. R. Adams: For Dr. F. J. Burr, at Rogers Park, a two-story basement and attic residence, 28 by 44 feet in size; to be of frame, with stone basement, have hardwood finish, mantels, gas fixtures, the sanitary plumbing, furnace. For Ferdinand Bunte, a two-story attic and basement residence, 25 by 48 feet in size; to be erected at Rogers Park; to be of frame with stone basement, have all the improvements, furnace, etc.

Architect Ira C. Saxe: For Mark Baskerville, on the northeast corner of Commercial avenue and Leland avenue, Ravenswood, a two-story and basement flat building, 48 by 57 feet in size; to be of buff Bedford stone front, hardwood interior finish and mantels, the best of modern sanitary improvements, laundries, gas and electric fixtures, electric bells, speaking tubes, window screens, concrete floors, furnaces.

Cleveland, Ohio.—Architects Coburn & Barnum are preparing plans for a winter residence, to be built on the east coast of Florida, for Mr. C. W. Bingham, of Cleveland. It will be two stories, frame, shingle roof, and will be fitted up in a simple, plain finish, with plumbing, wood mantels, etc.; to cost about \$7,000. Figures are now being taken on a frame Baptist church, by the same architects; building will be erected at the corner of Pearl and Library streets; slate roof, plumbing, furnace heat, pews, chairs, pulpit furniture and organ will be required; cost about \$6,000. They also report a double frame residence building, on Wilson avenue, for Mr. P. J. Donovan; cost \$7,000. They are also preparing plans for a brick Baptist church to be built at the corner of Bridge and Dare streets; probable cost \$10,000.

Architect W. D. Benes has two frame residence under process of construction on Grace avenue in Lakewood, Ohio, and is now taking figures on a double frame dwelling, to be built on Case avenue, for Mr. James Cole; probable cost \$7,000.

Architect J. W. Russell reports: Additions and alterations to a store building on Cedar avenue, for Dr. R. S. Hubbard; a frame residence on Hough avenue, for Willson Brothers, and a frame residence on Euclid place, for Dr. Jamieson Strong.

Architect W. W. Sabin has a stone church to be built in Euclid, Ohio, and a brick church to be built on Gordon avenue, city; they will cost about \$10,000 apiece.

Architects French & La Chance report: A frame residence for J. E. Terry, to be built on Russell avenue; all modern improvements, slate roof, bells and electric lights, hot-water heat; 37 by 60 feet in size; cost \$5,000. For Robert Duffy, they report a three-story brick block, impervious brick front, on River street; living apartments on second floor; gravel roof, galvanized iron, and iron front with the brick; probable cost \$12,000.

Norcross Brothers, contractors for same, of Worcester, Massachusetts, have just broken ground for a fifteen-story building on the north side of Euclid avenue between Bond and Erie streets; building will be 120 feet front on Euclid avenue, 250 feet deep to Vincent street, and 127 feet wide on Vincent street; the fifteen-story part will only extend back 60 feet; it will be 212 feet from the sidewalk to the top of the cornice; the first two stories will be used as store-rooms; the one side of the entrance will be occupied, March 1, 1895, by H. R. Hatch & Co., dry goods, and elegant store fittings will be required; the main part of the building will be used for offices, and the top floor will be fitted up for a first-class restaurant; the offices and restaurant will be reached by four elevators; the New England Company, of which Samuel Chandler, Cleveland, is secretary, and Asahel Strong, Cleveland, treasurer, is putting up the building; Shepley, Runtan & Coolidge, of Boston, are the architects; probable cost between \$400,000 and \$500,000.

Architect A. H. Granger reports: House nearly completed on Kensington street, for Mrs. M. J. Kline, hardwood, furnace, plumbing, etc.; cost \$5,500. For H. G. Dalton, a frame residence on Genesee street, 62 feet 6 inches by 33 feet 6 inches in size; hardwood mantels, hot-water heat; cost \$8,500. For D. J. Norton, a frame and shingle residence, 29 by 45 feet in size; Colonial; everything modern.

Denver, Colo.—Architect J. J. Huddart: For Mrs. H. W. Warren, a two-story brick dwelling, size 36 by 42 feet; cost \$5,000. For W. C. Madison, a two-story residence, size 29 by 47 feet; brick; cost \$5,000.

Architects Van Brunt & Howe, Kansas City, Missouri: For Union Depot Company, remodeling depot; three-story brick and stone at a cost of \$72,000.

Architect Fischer: For George Tritsch, a two-story business block, size 50 by 110 feet; brick; to cost \$12,000.

Detroit, Mich.—Architects Mason & Rice: For D. J. Campan, a stone and brick residence, to be built on Jefferson avenue; cost \$70,000.

Architects Donaldson & Meier: For Roman Catholic Society of the Holy Assumption, a two-story brick schoolhouse, size 40 by 72 feet; cost \$7,000.

Architects Rogers & Macfarlane: For I. A. McGraw, M. D., and C. A. Lightner, a double brick residence on Van Dyke near Jefferson avenue; size 68 by 85 feet; buff pressed brick and stone; cost \$25,000.

Architects M. L. Smith & Son: For Col. John Atkinson, a four-story brick office building; to cost \$10,000. For R. McDougall, a two-story frame summer residence on Grose Isle in Detroit river; cost \$5,000.

Architect A. E. French: For Mr. Williams, a three-story brick residence; to cost \$6,000.

Architects Malcombson & Higginbotham: For Mr. Nichols, a two-story double frame residence on Eleventh street near Church street; cost \$5,000.

Architects E. A. Walshe & Son: For Patrick Hickey, a two-story brick residence; cost \$5,000.

Architects Van Leyen & Rill: For Beth Jacob Congregation, a brick and stone synagogue; cost \$10,000.

Architect E. C. Van Leyen: For Parker, Webb & Co., a two-story brick and stone office building on Rose and Twentieth streets; to cost \$5,000.

Architect J. G. McLean, Windsor, Ontario: For the Windsor School Board, a two-story brick schoolhouse; to cost \$12,000. For the Ancient Order of Foresters, a three-story brick hall and office building; to cost \$10,000.

Architect James A. Maycock, of Windsor, Ontario: For Windsor School Board, a two-story brick schoolhouse on corner of Tuscarora and Louis streets; to cost \$22,500.

Milwaukee, Wis.—Architect Charles Kirchhoff: For the Schlitz Brewing Company, a three-story restaurant; size 25 by 100 feet; brick with stone trimmings; cost \$11,000.

Minneapolis, Minn.—Architect W. S. Hunt: For H. Weiskopf, a three-story double flat building; size 47 by 106 feet; brick and stone; cost \$12,000. The Franklin M. E. Church are contemplating erecting a new church, the building to cost \$40,000.

Architects Bertrand & Keith: For J. W. McCoy, a two-and-a-half-story dwelling, stone and frame; size 45 by 70 feet; modern improvements; cost \$15,000.

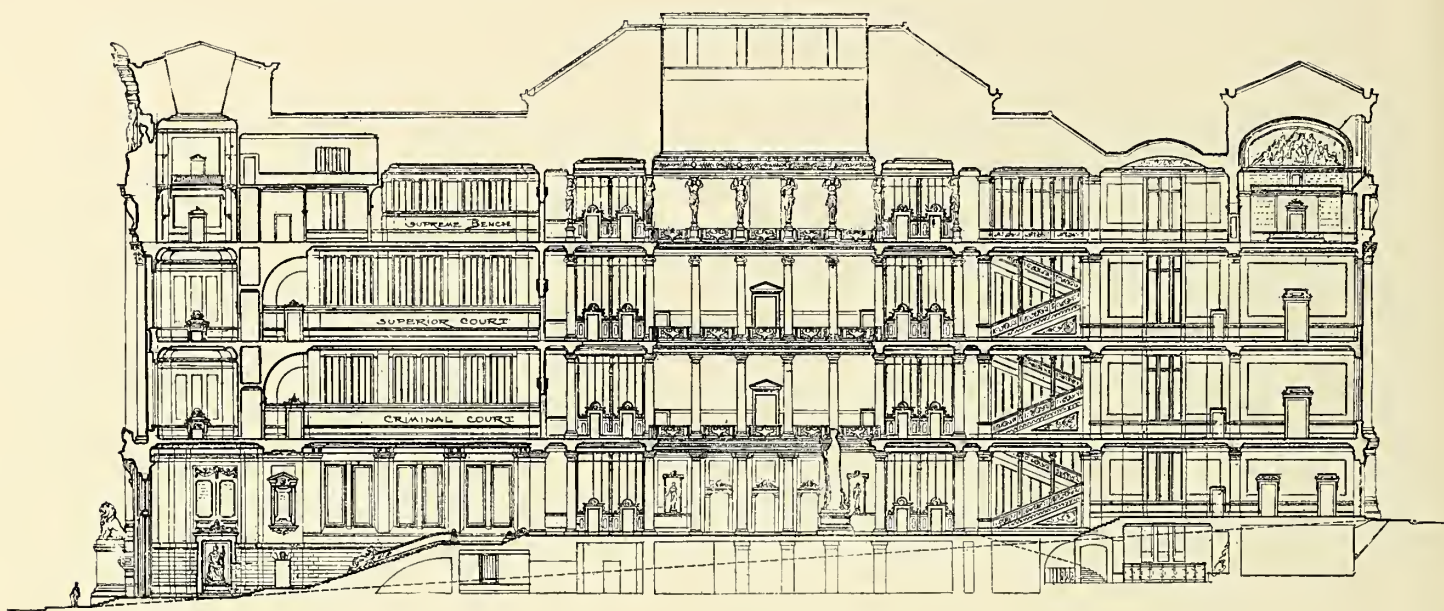
Pittsburgh, Pa.—Architect C. L. Phillis: For J. Twitchell, a two-story brick dwelling; to cost \$6,000.

St. Louis, Mo.—Architects Barnett, Haynes & Barnett: For J. P. Wood, a four-story addition to St. John's Hospital; size 40 by 105 feet; pressed brick and stone; cost \$20,000. For B. F. Hammett, a three-story residence; size 50 by 70 feet; brick and stone, slate roof; cost \$20,000. For John Griffen, a two-story store and apartment building; size 36 by 56 feet; brick and stone; cost \$10,000.

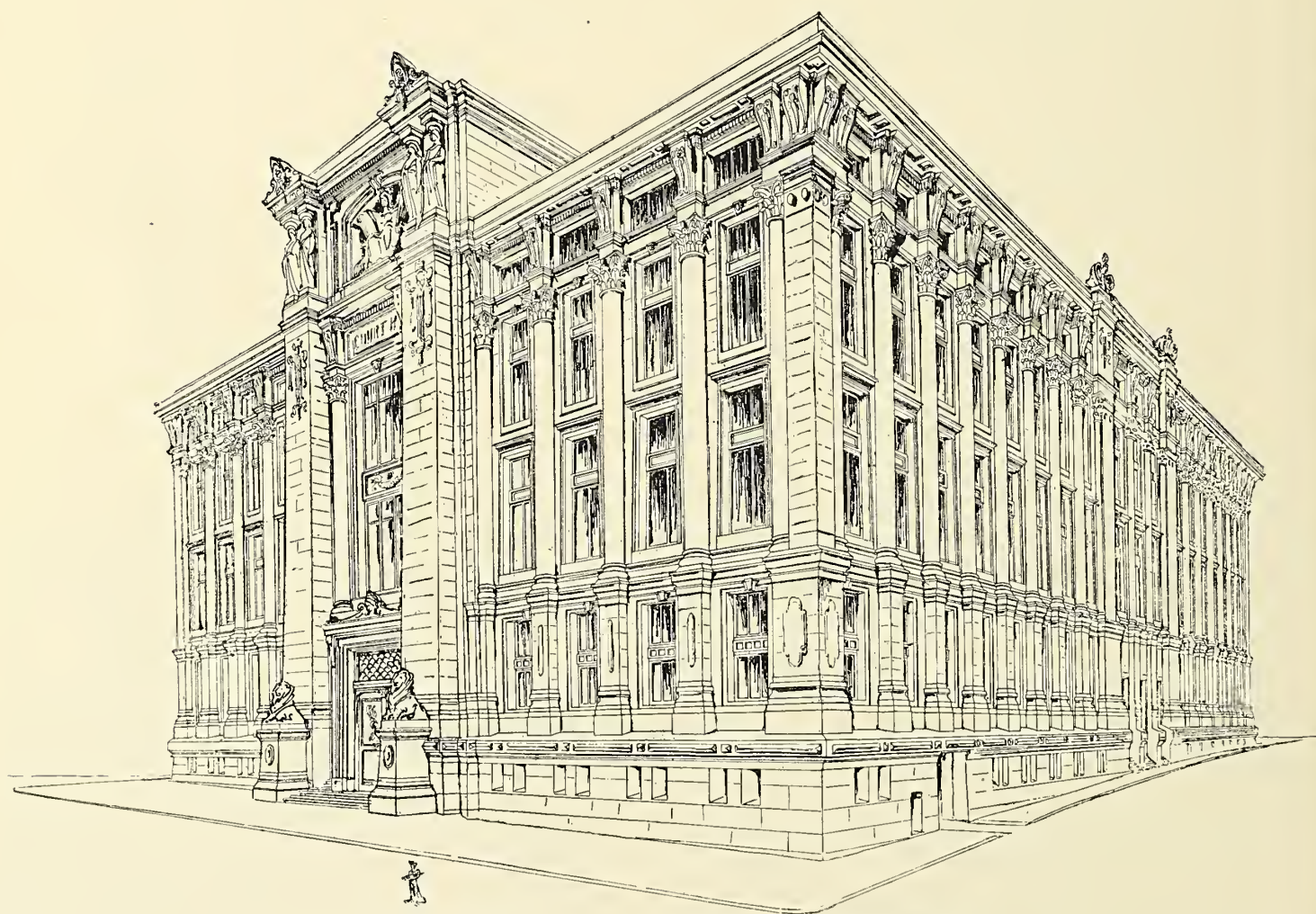
Architect A. Monschein: For J. P. Pray, a two-story residence; size 29 by 50 feet; brick and stone, slate roof; cost \$10,000.

Architect M. T. O. Allardt: For M. A. Moran, two two-and-a-half-story dwellings; size 24 by 38 feet each; pressed brick, stone trimmings; cost \$12,000. For E. Scown, a two-story flat building, brick, slate roof, all modern improvements; cost \$6,000.

Architects C. H. Brown & Son: For J. O. F. Delaney, two three-story store buildings; size 51 by 100 feet; brick and stone; cost \$9,000.



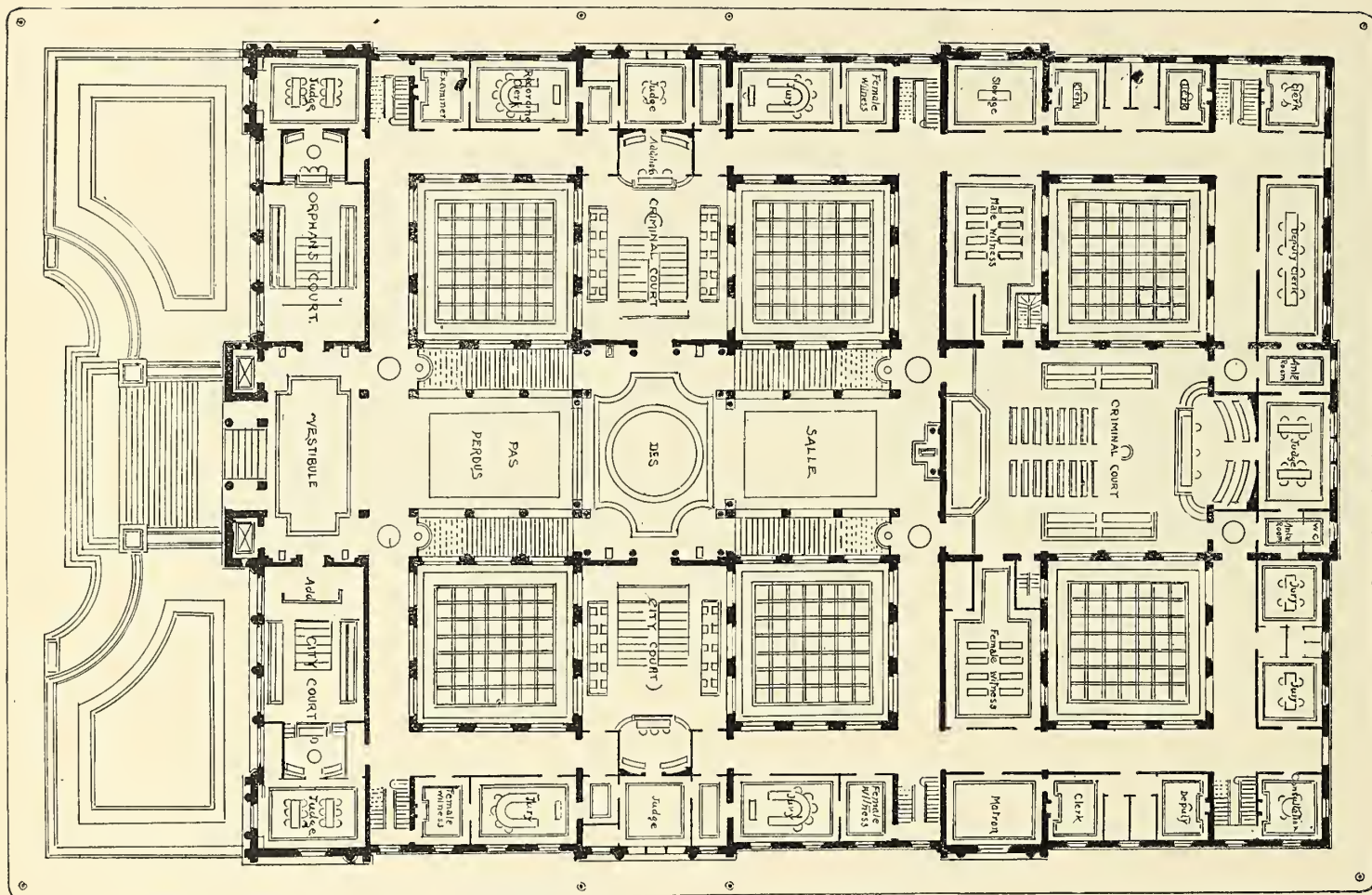
LONGITUDINAL SECTION.



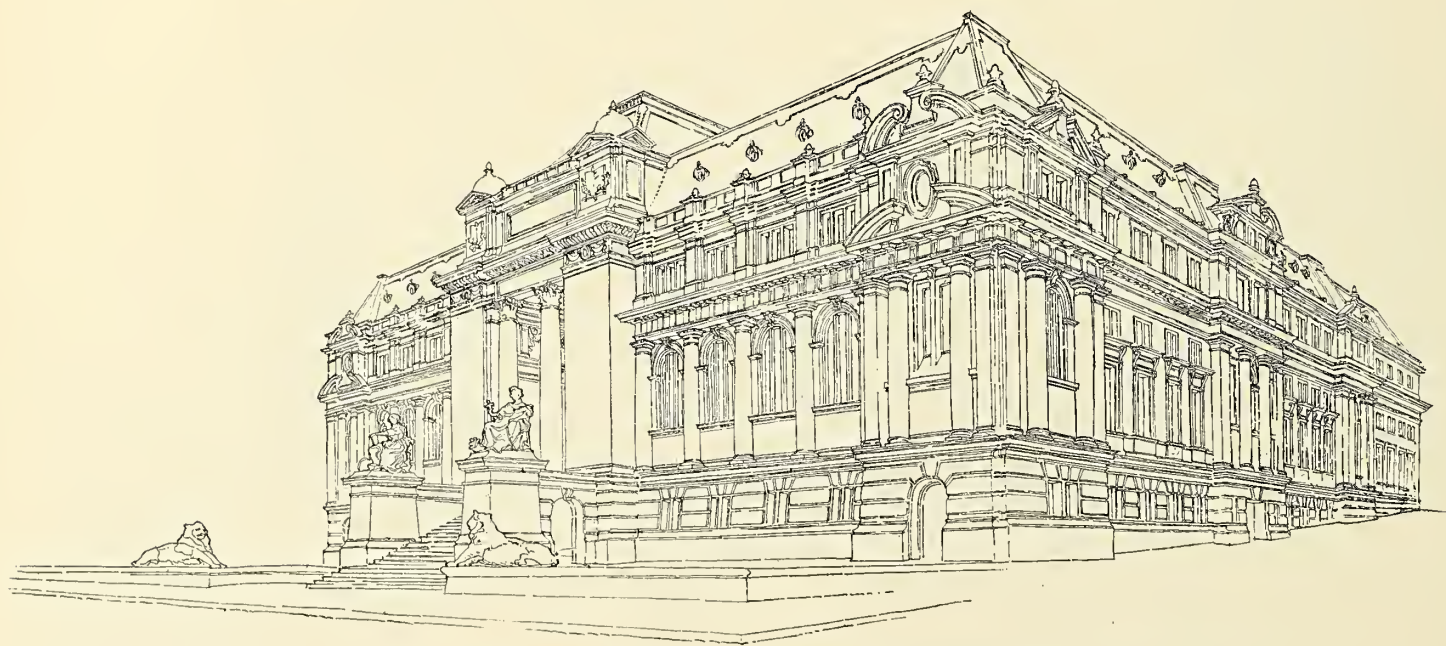
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(One of the best ten designs.)

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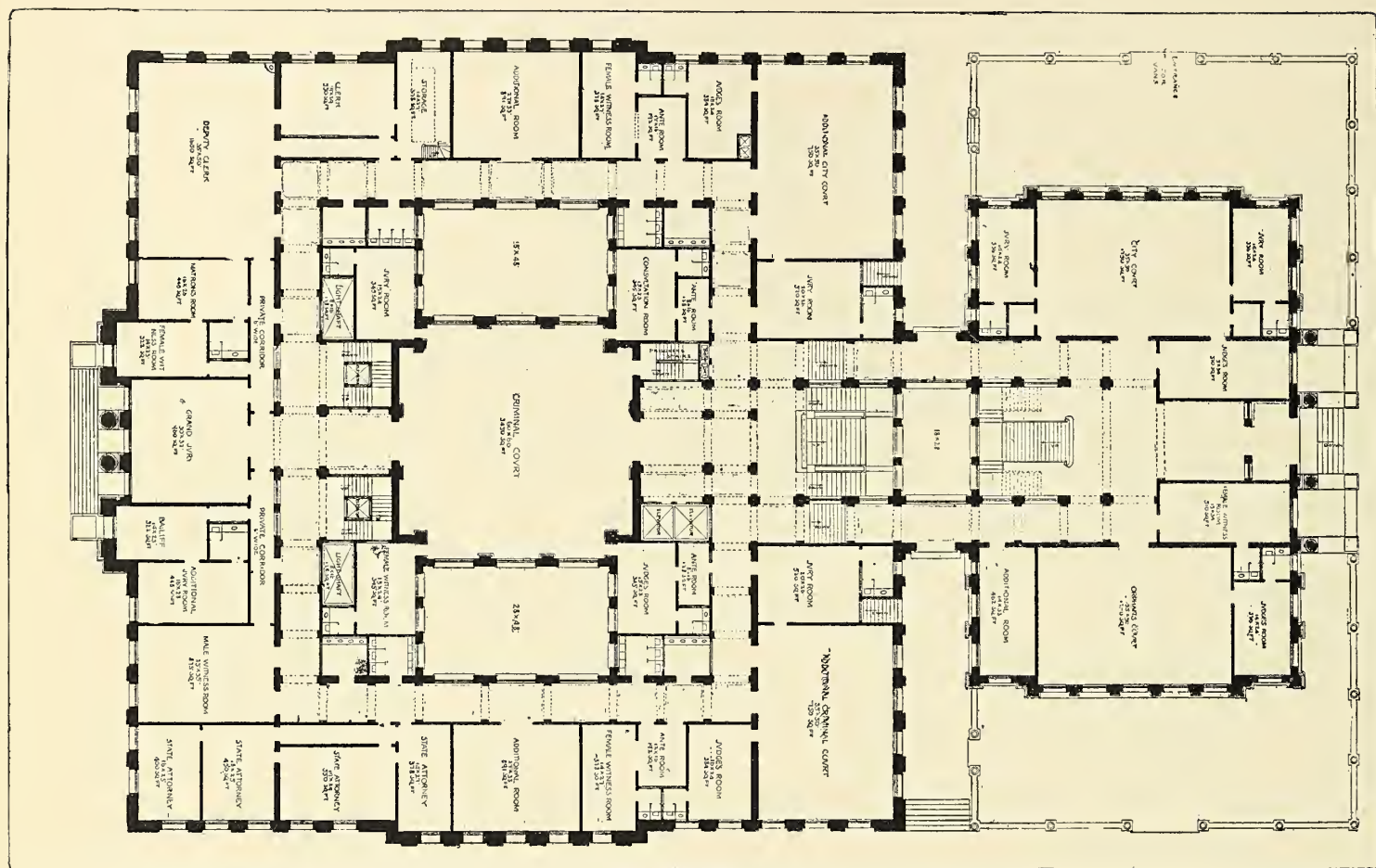
FIRST FLOOR PLAN.



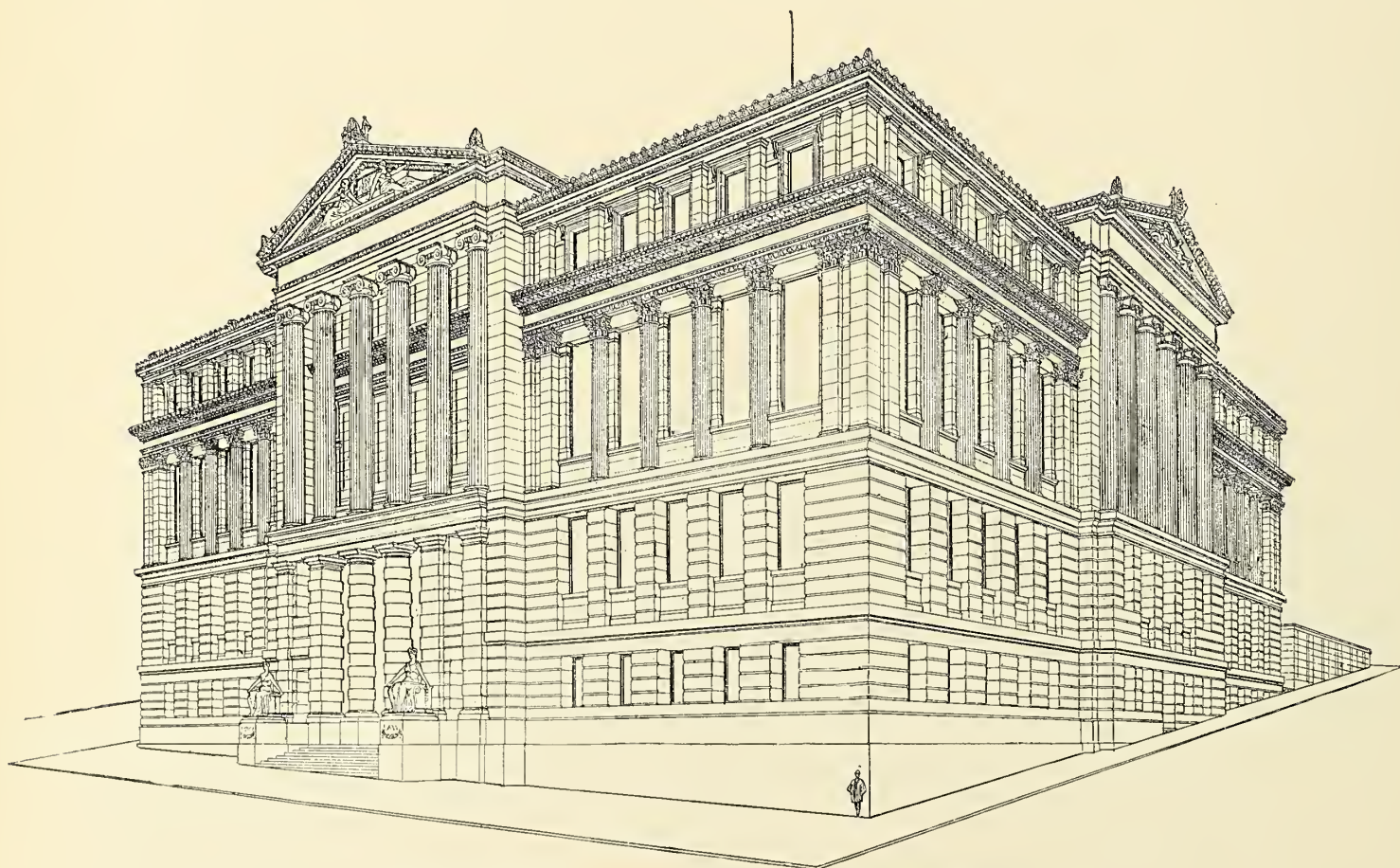
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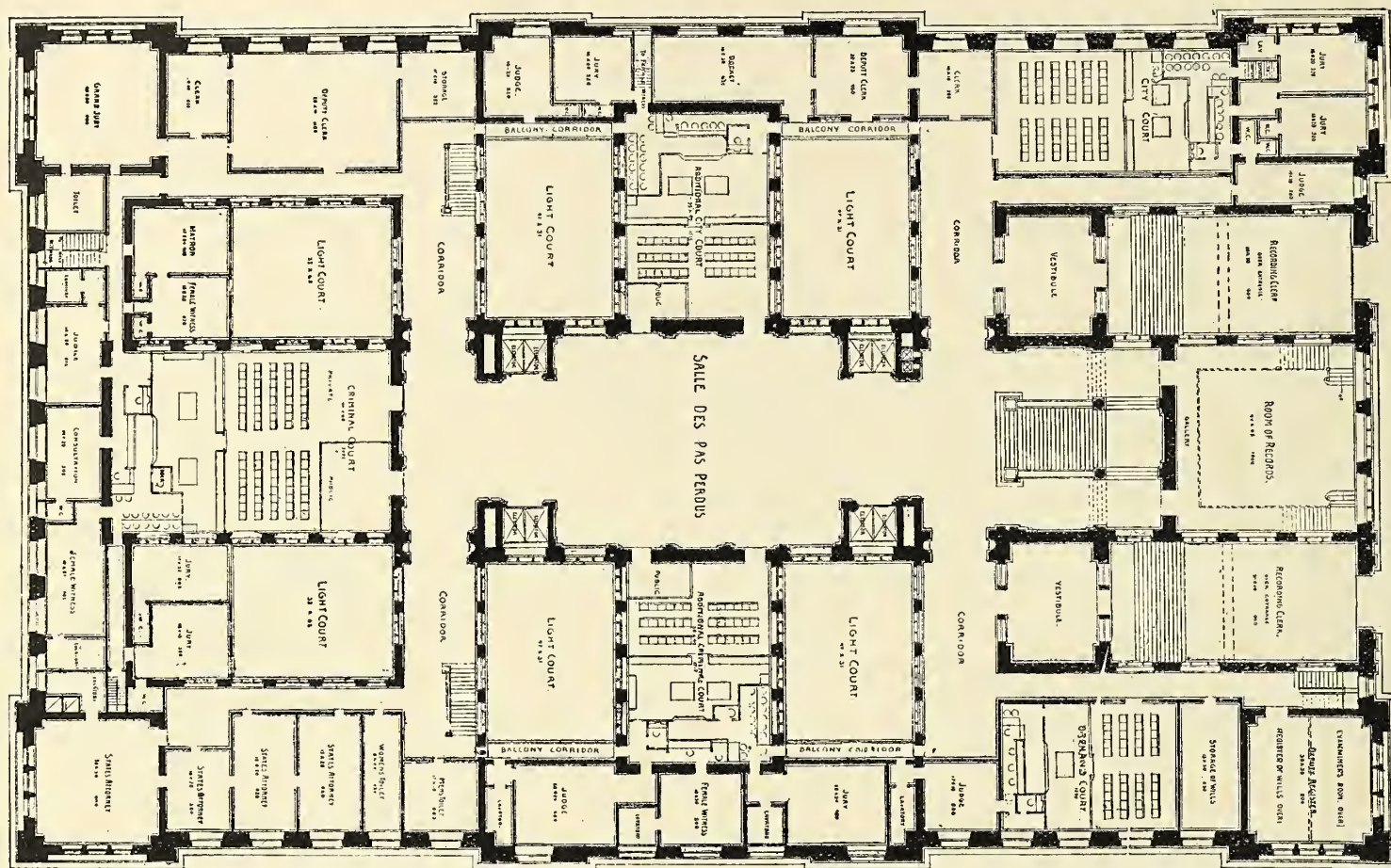
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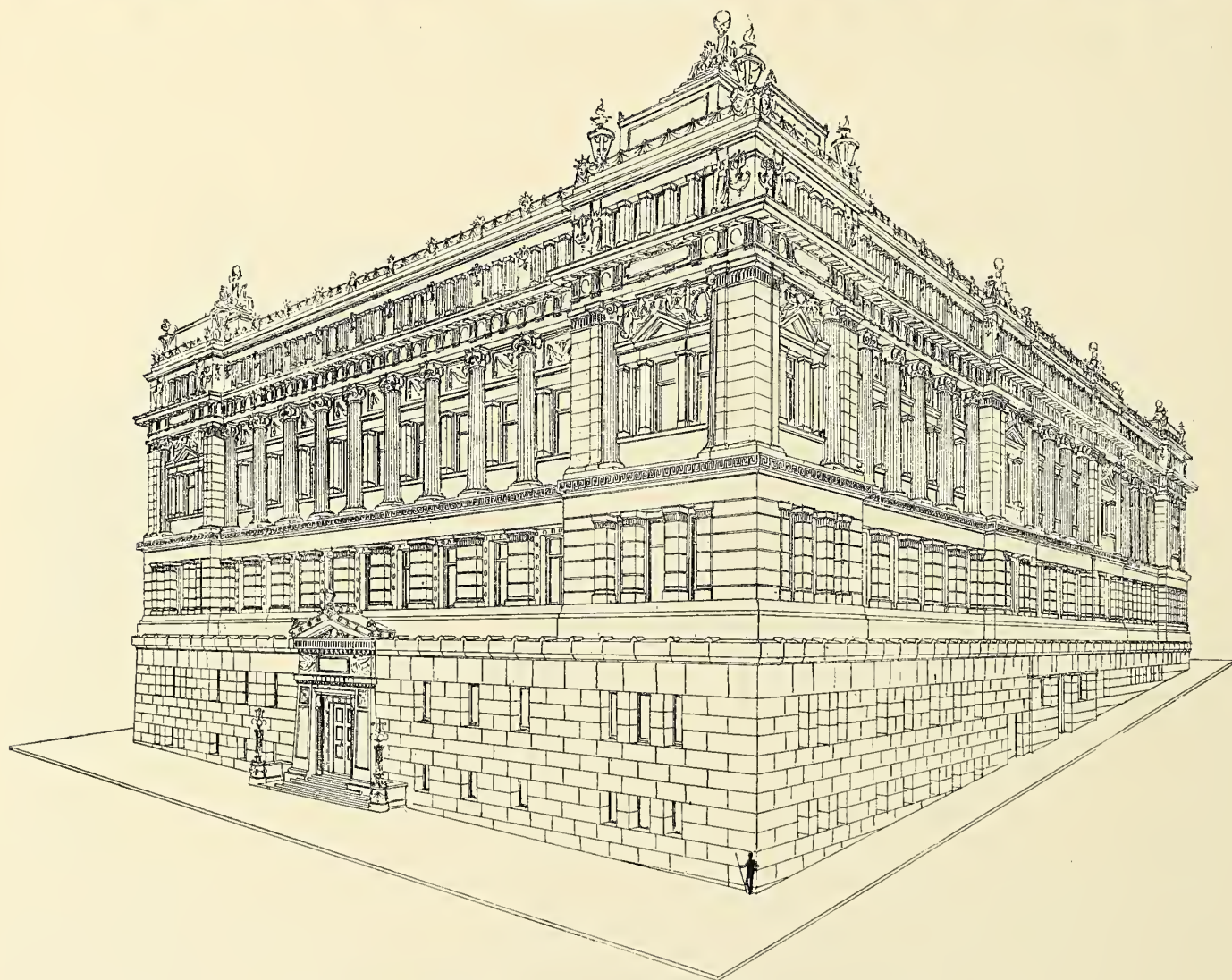
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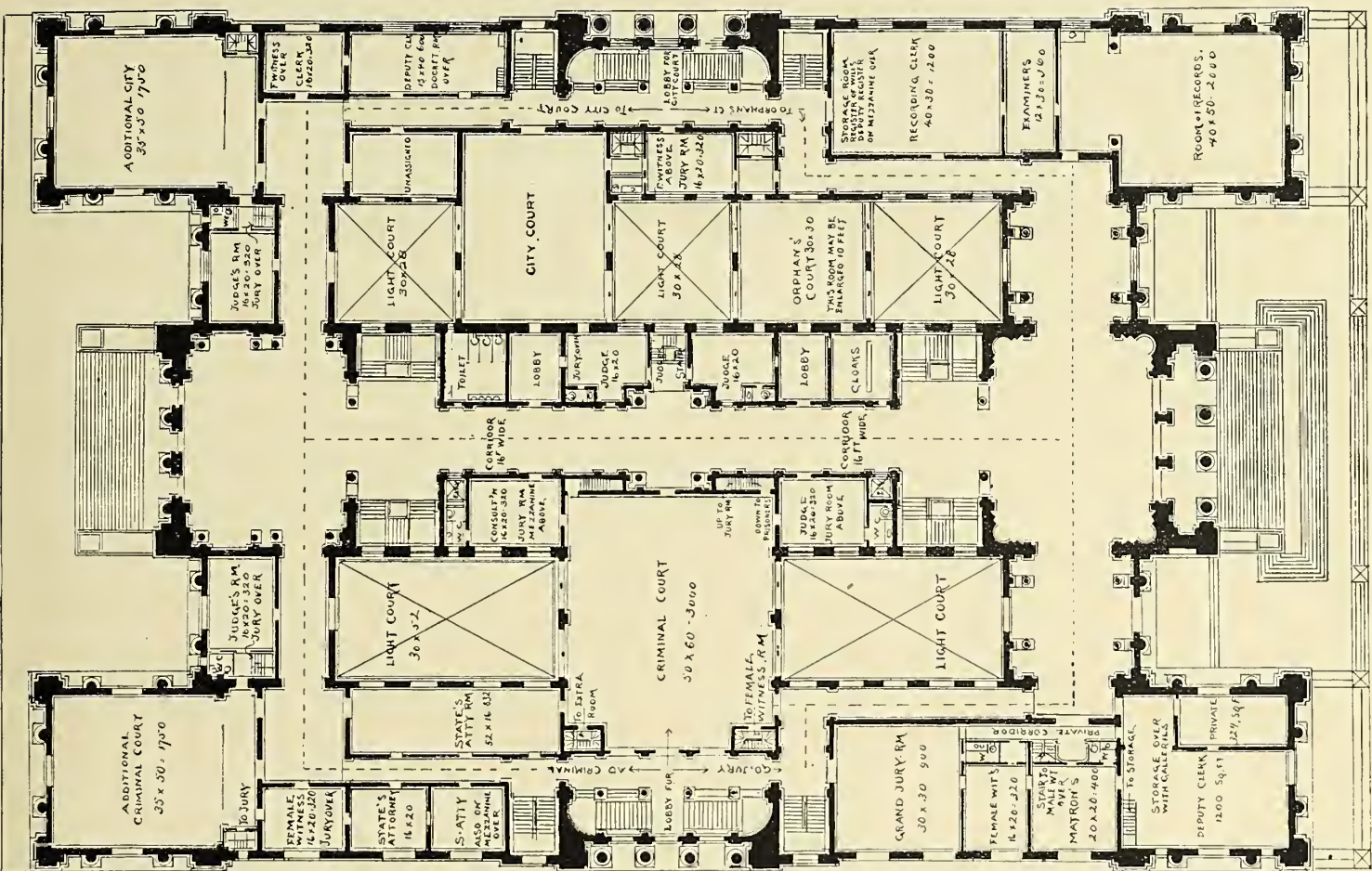
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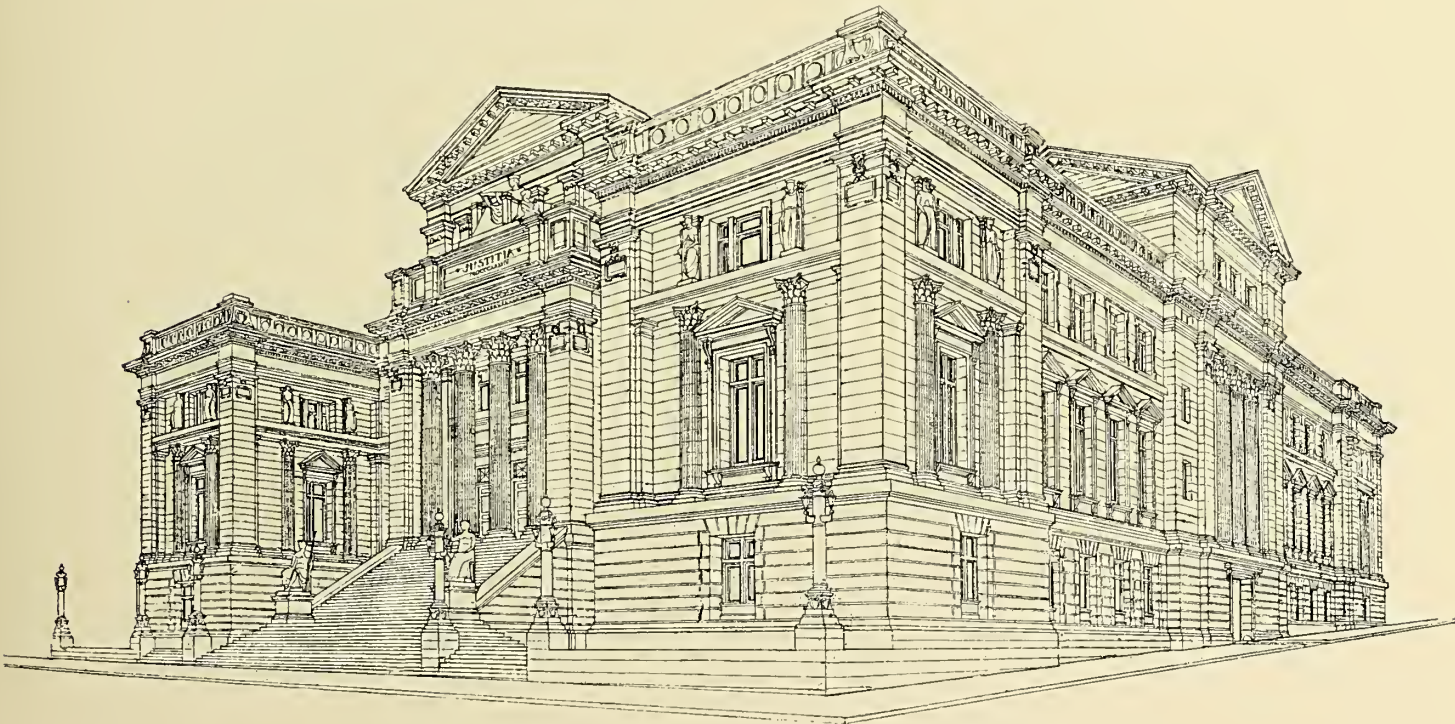
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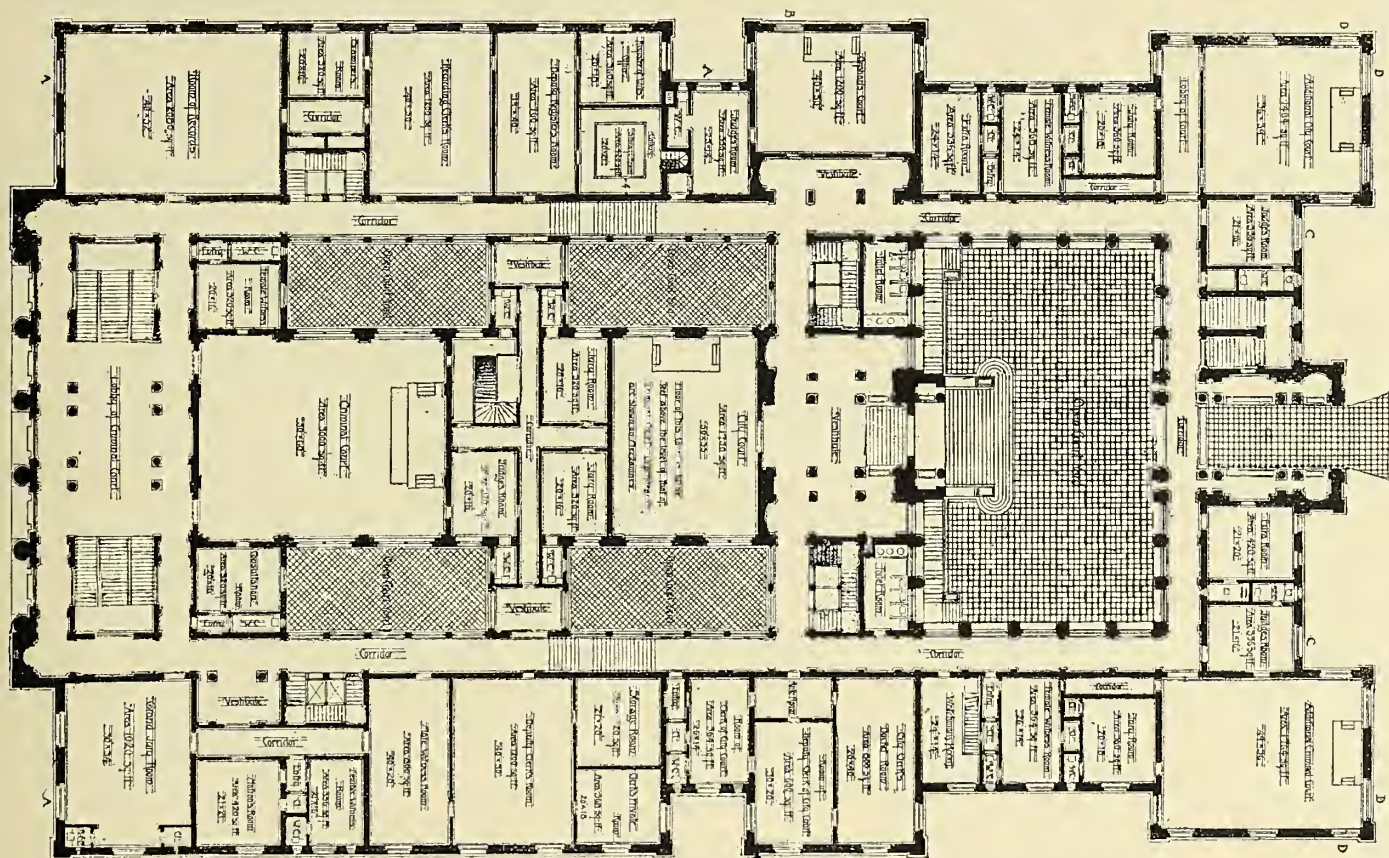
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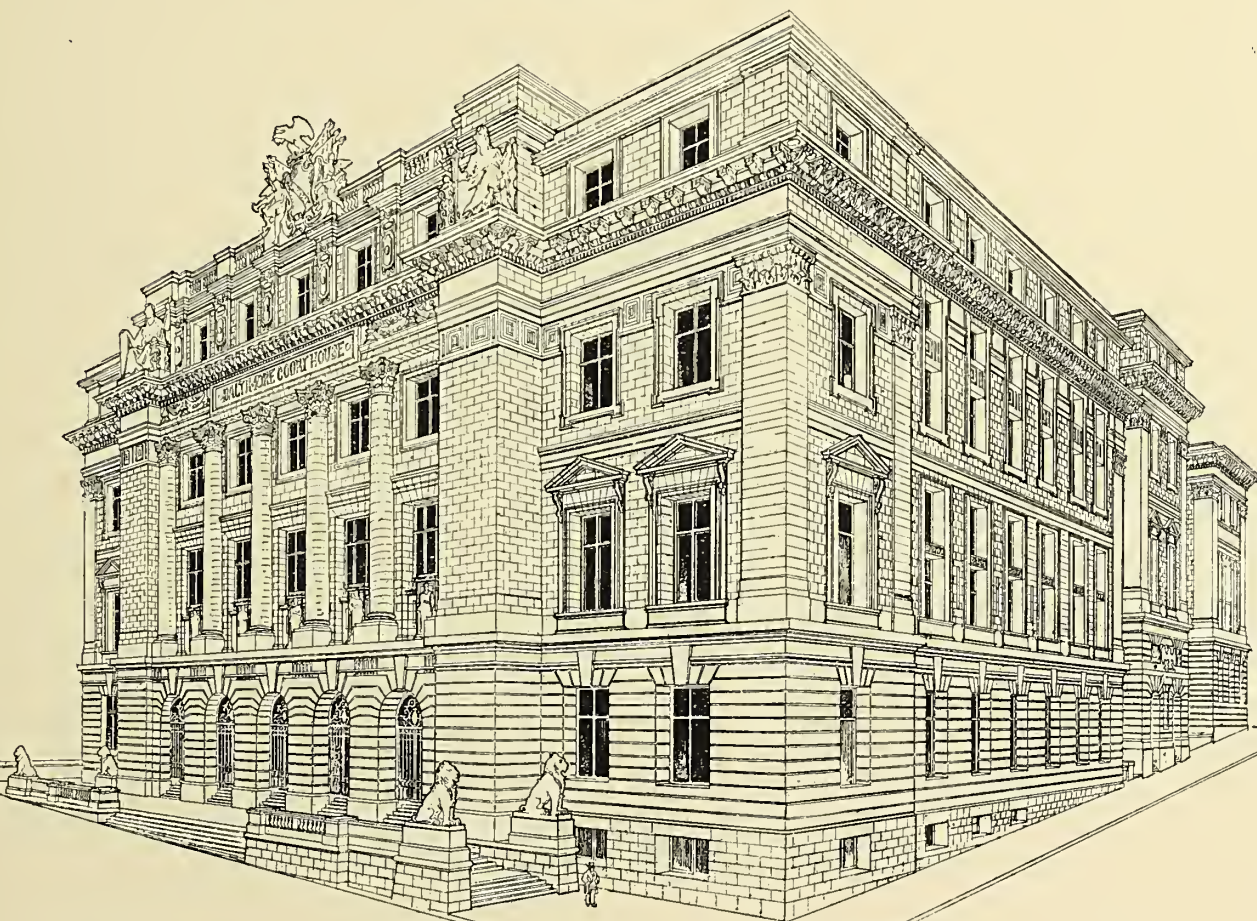
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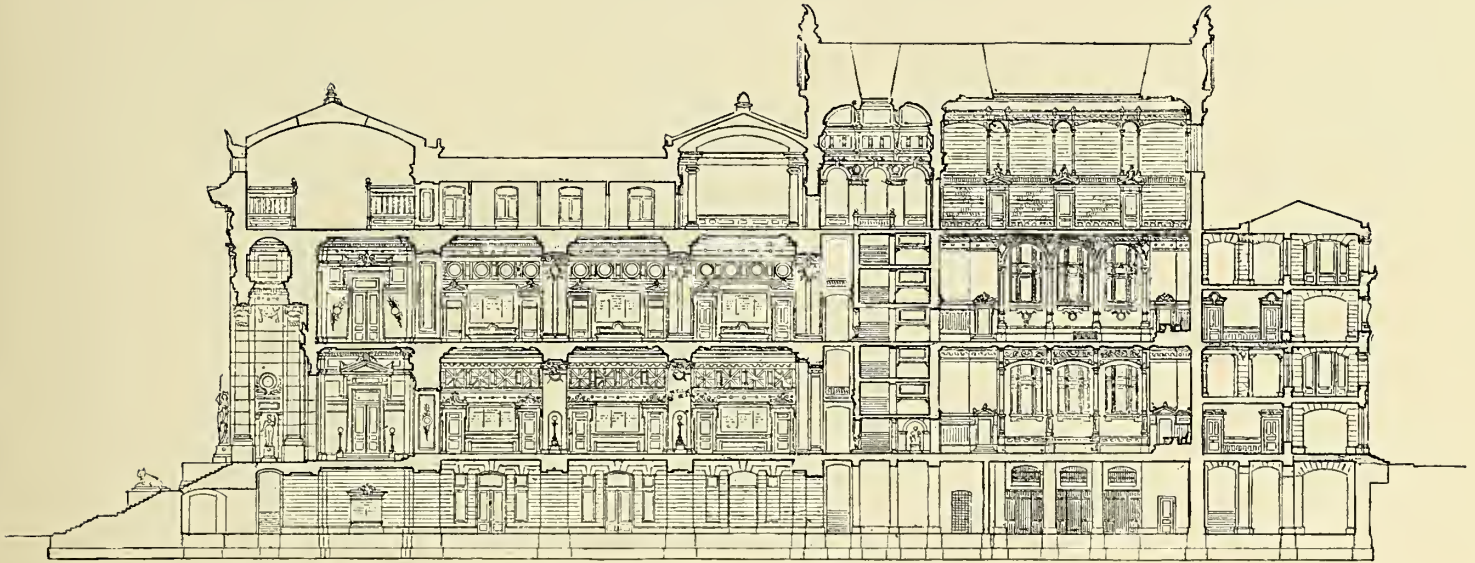
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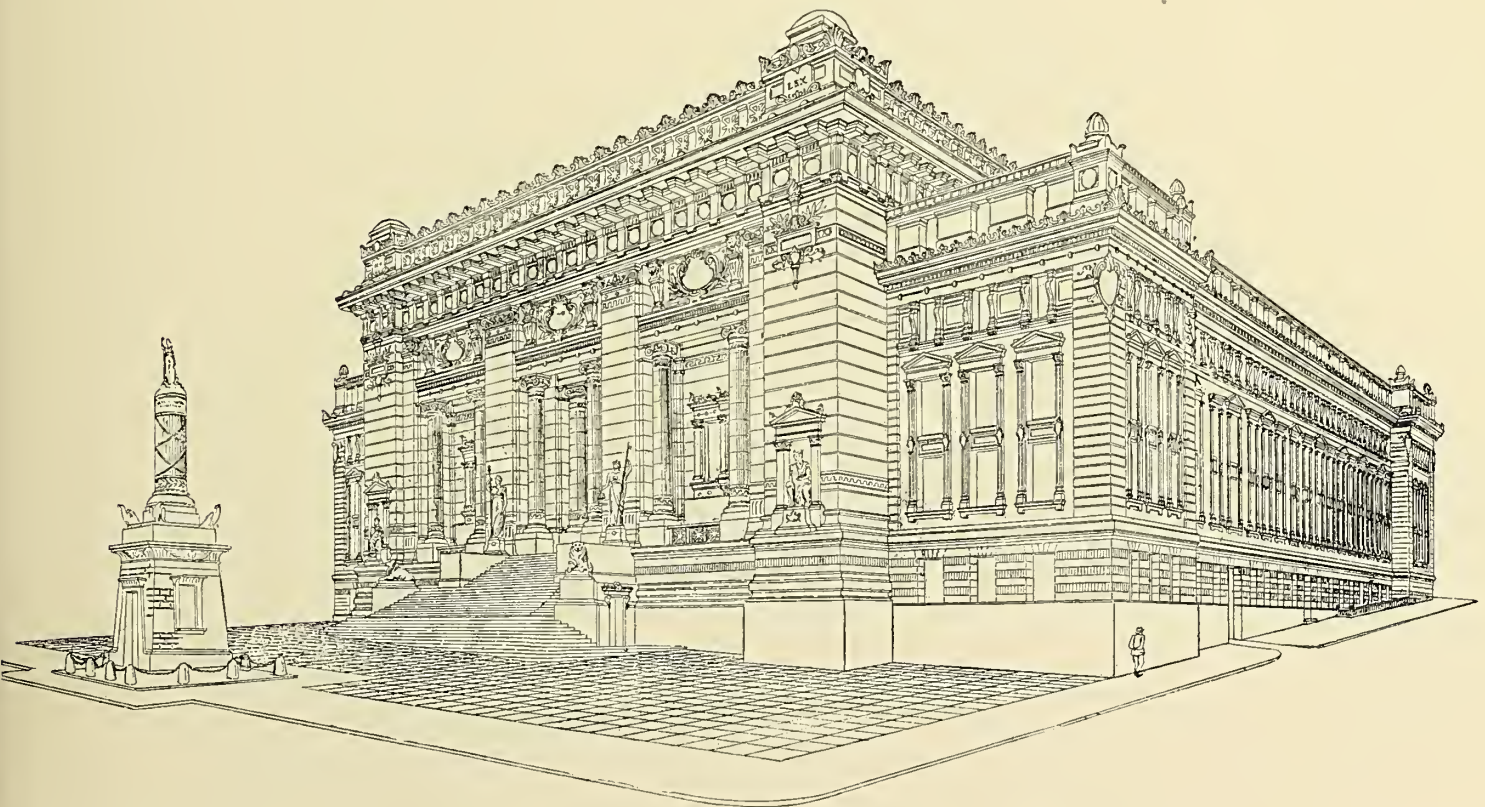
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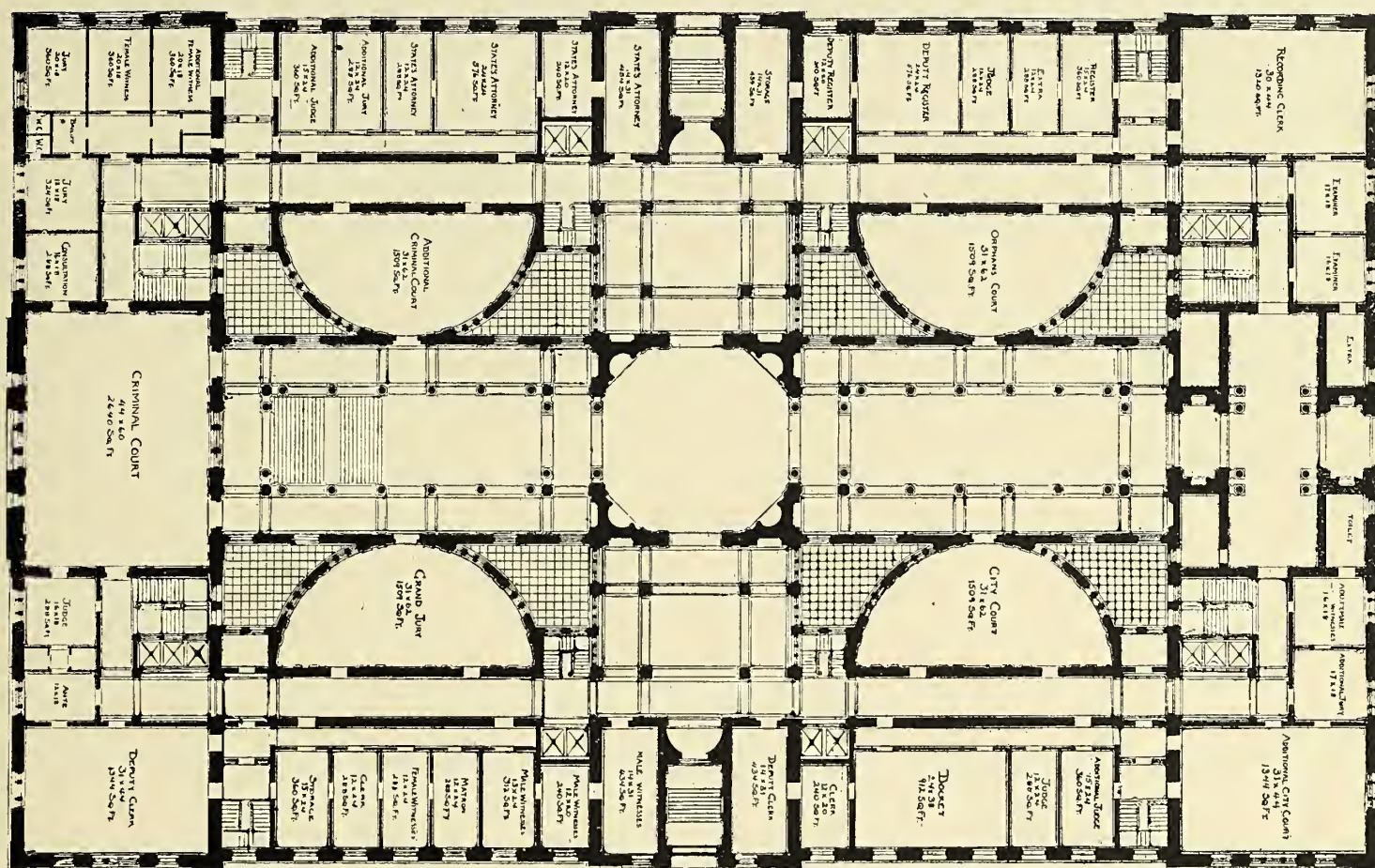
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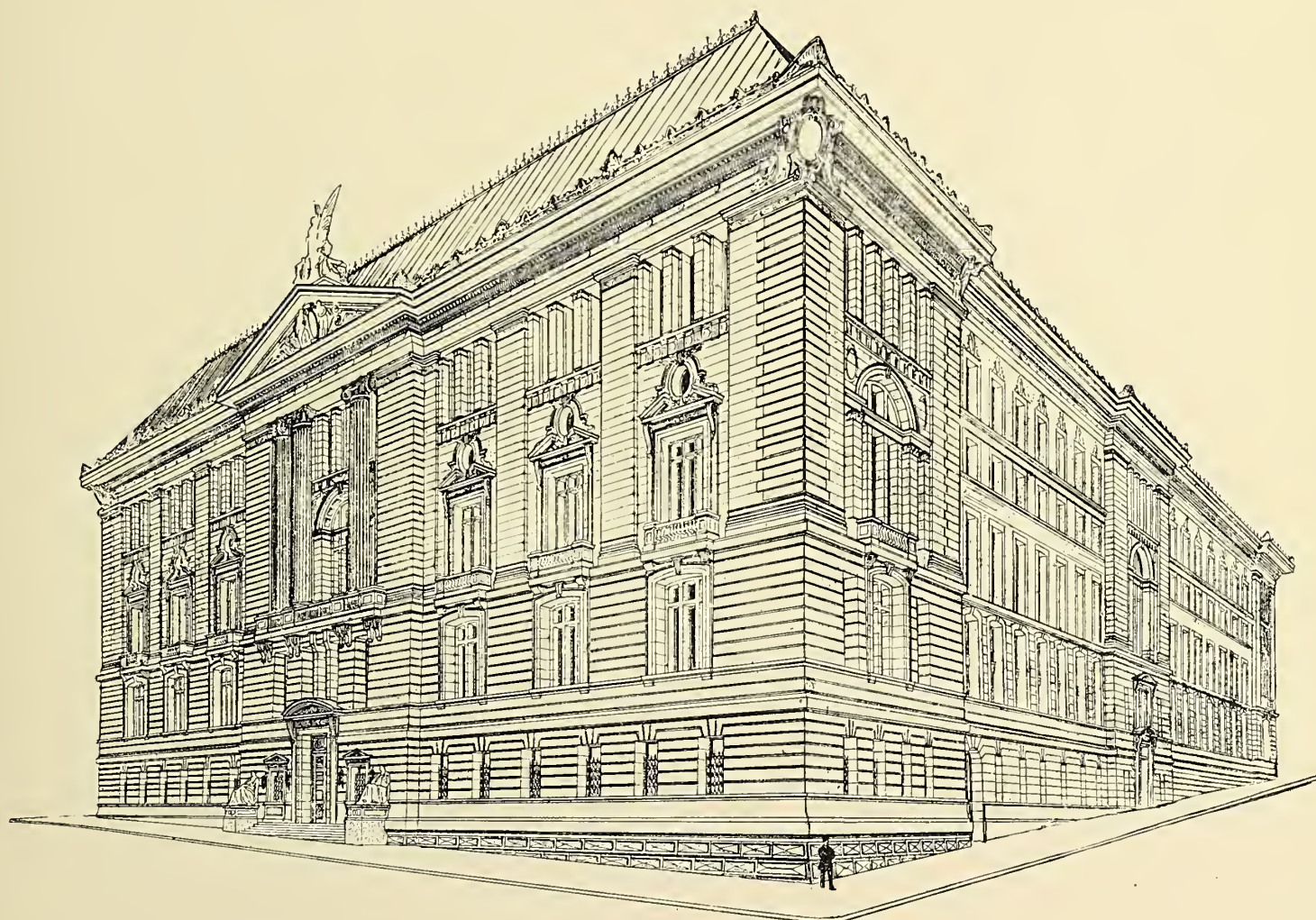
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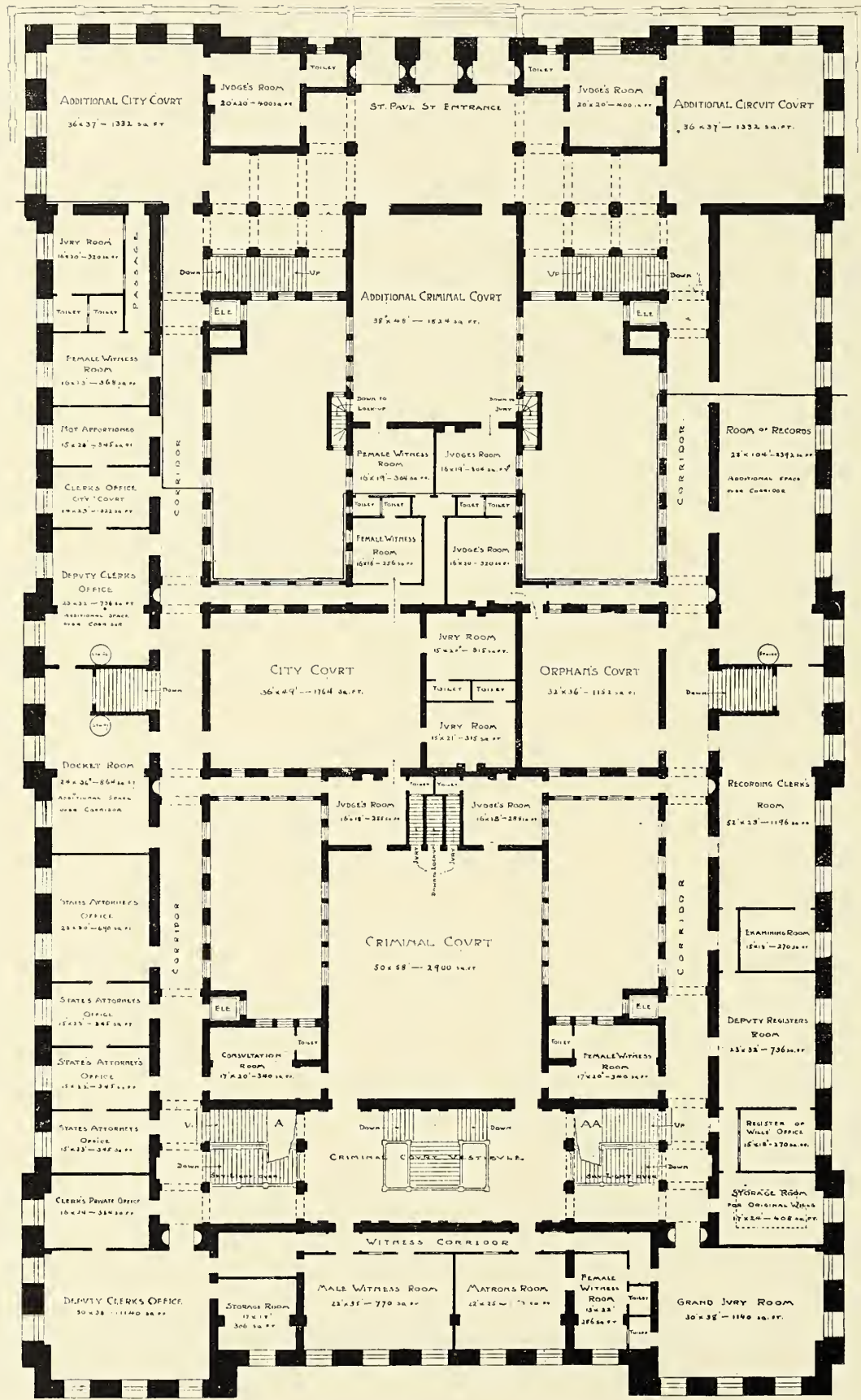
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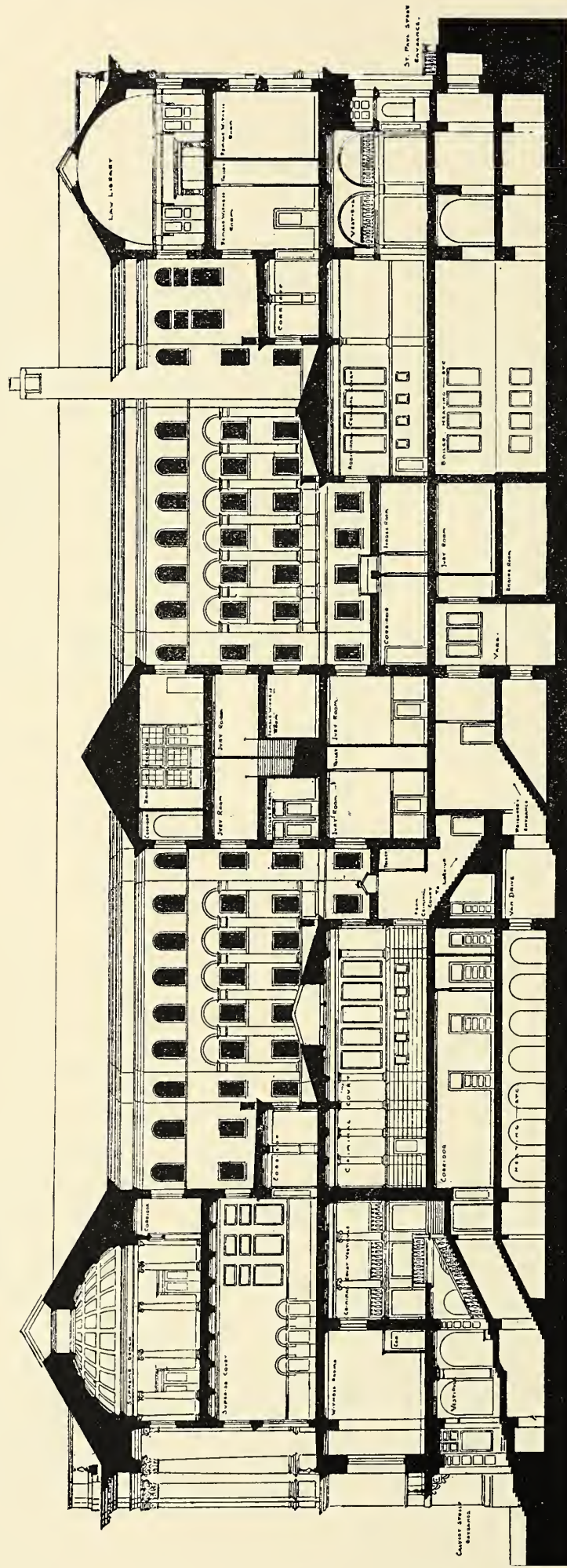
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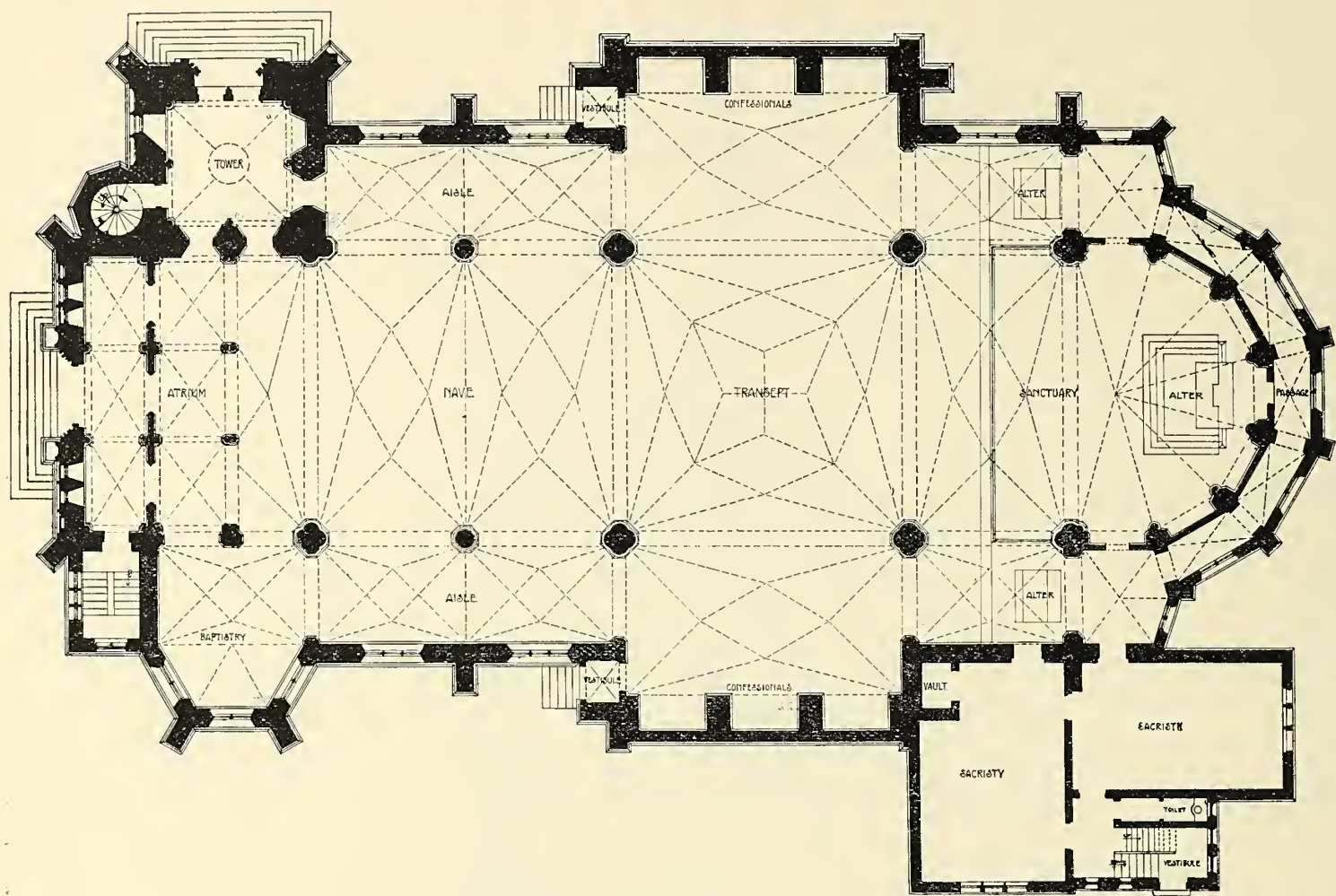
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SECTION • EAST AND WEST



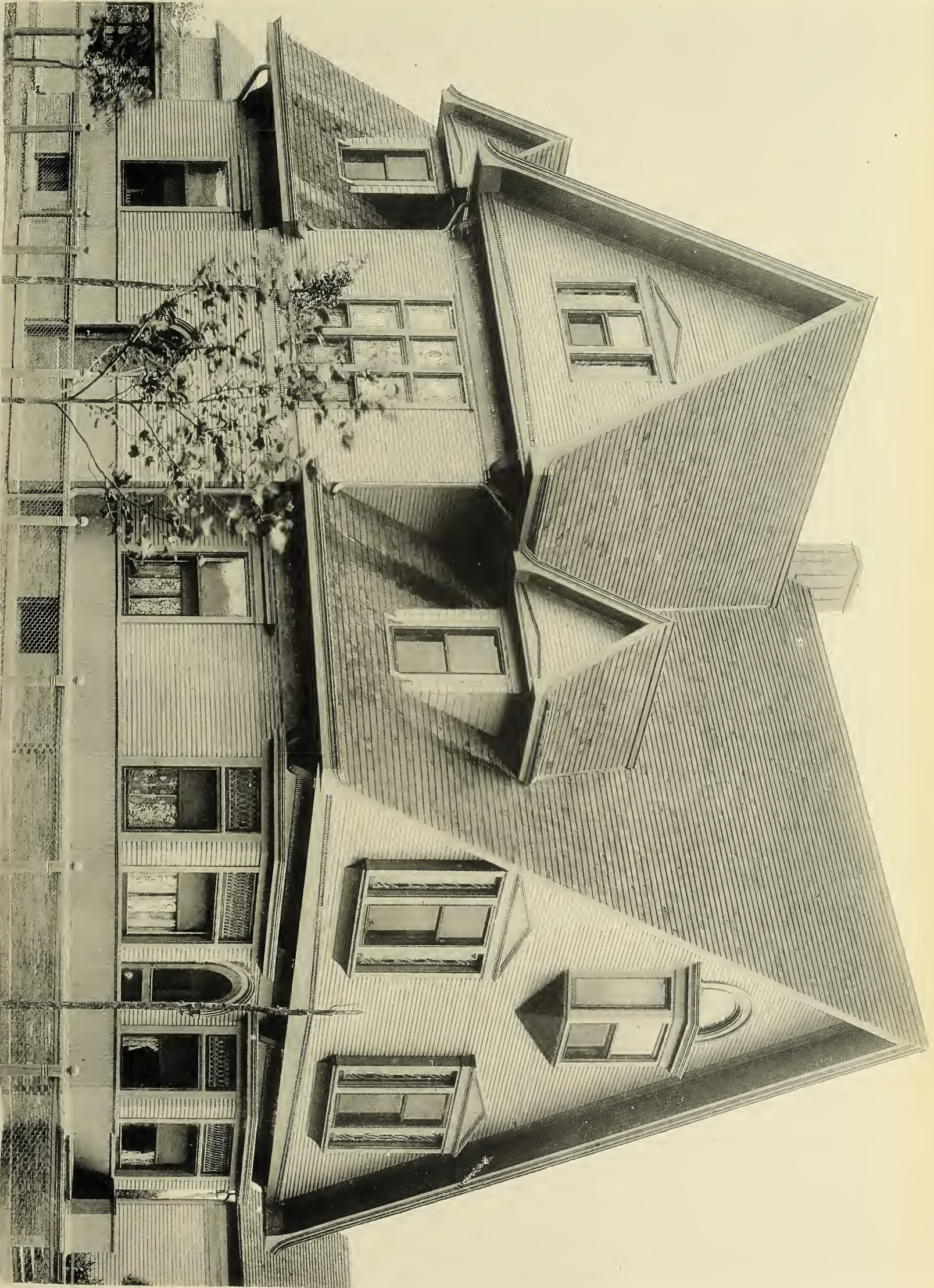
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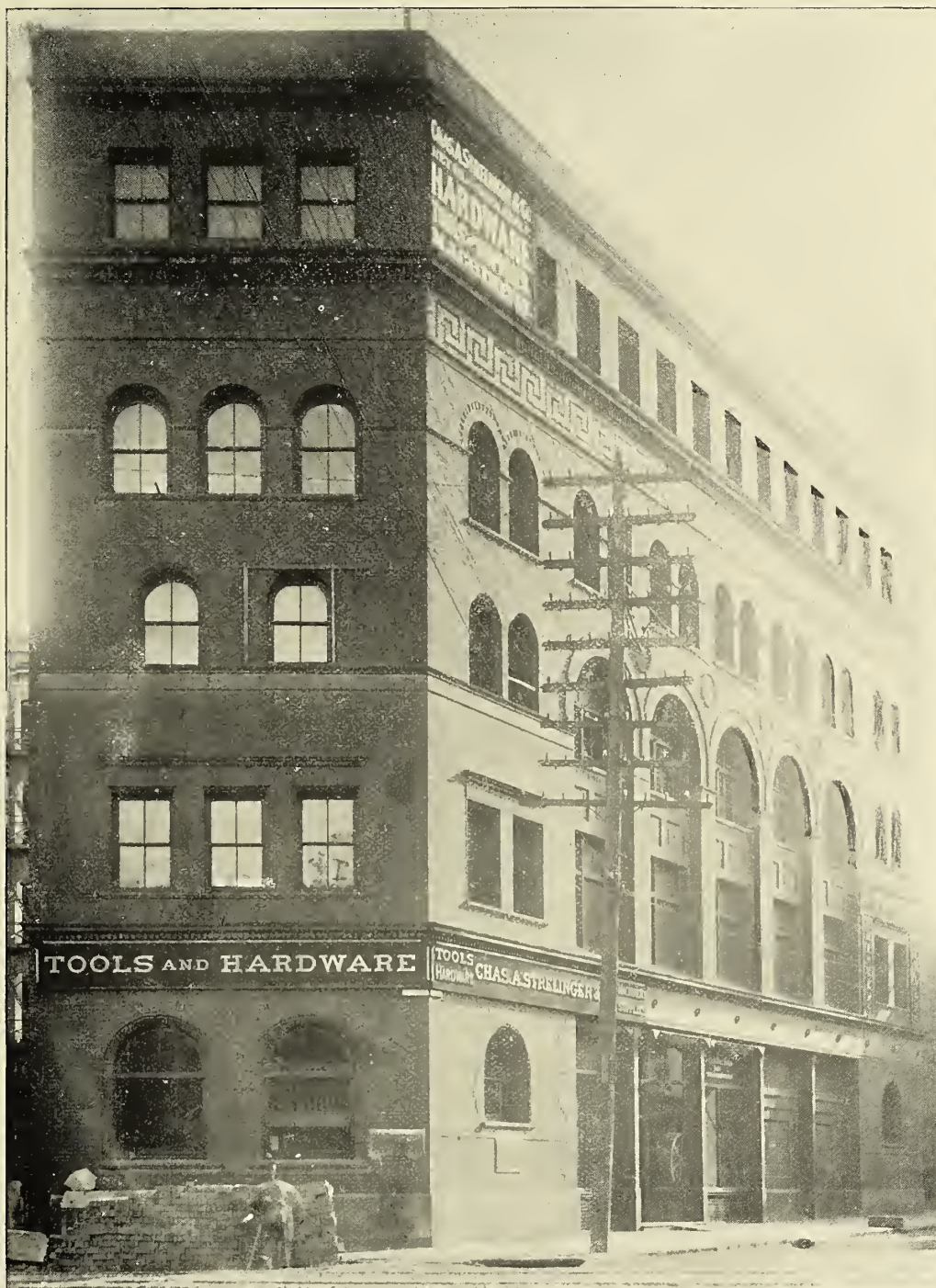


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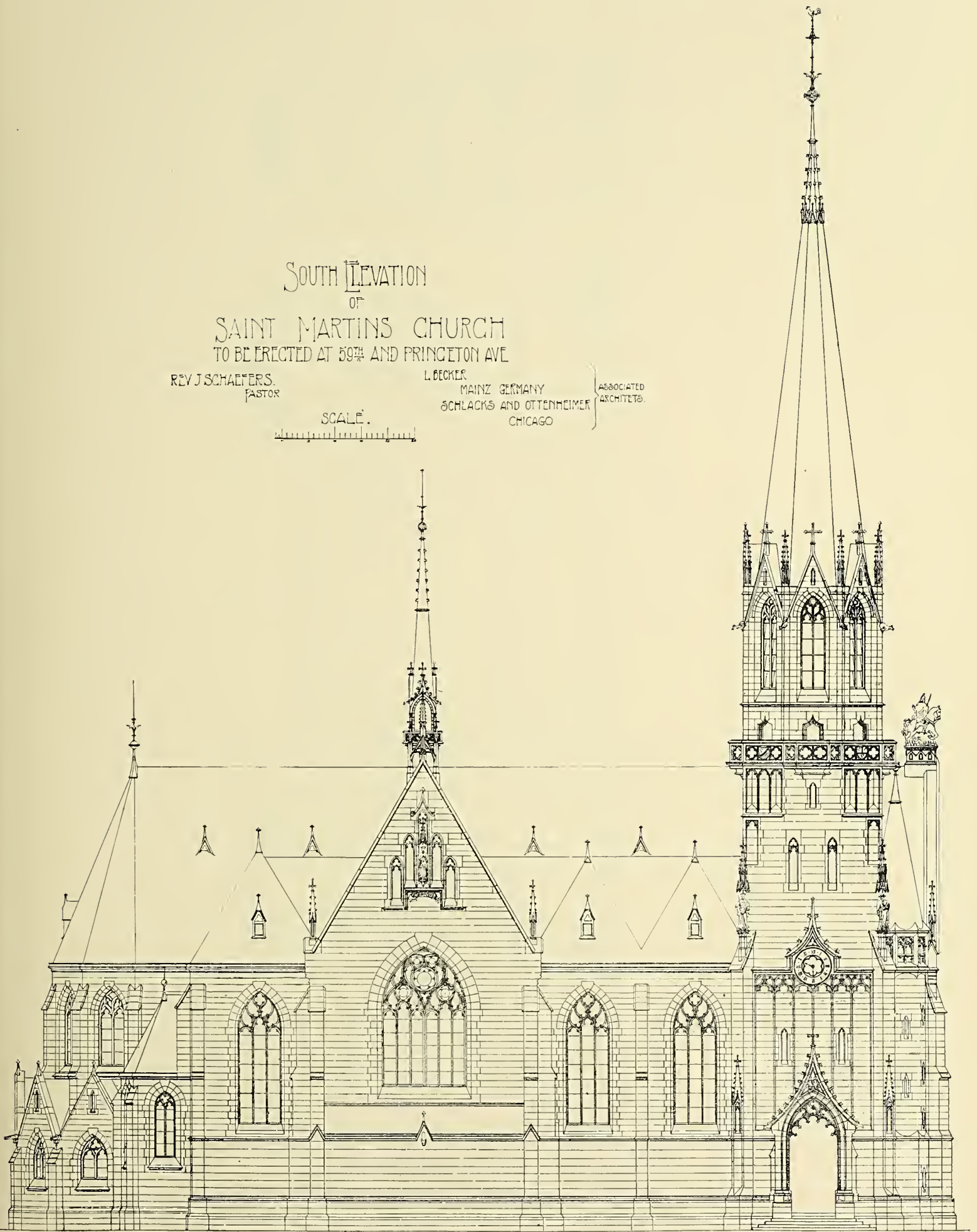
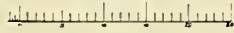
SOUTH ELEVATION
OF
SAINT MARTINS CHURCH
TO BE ERECTED AT 59TH AND PRINCETON AVE.

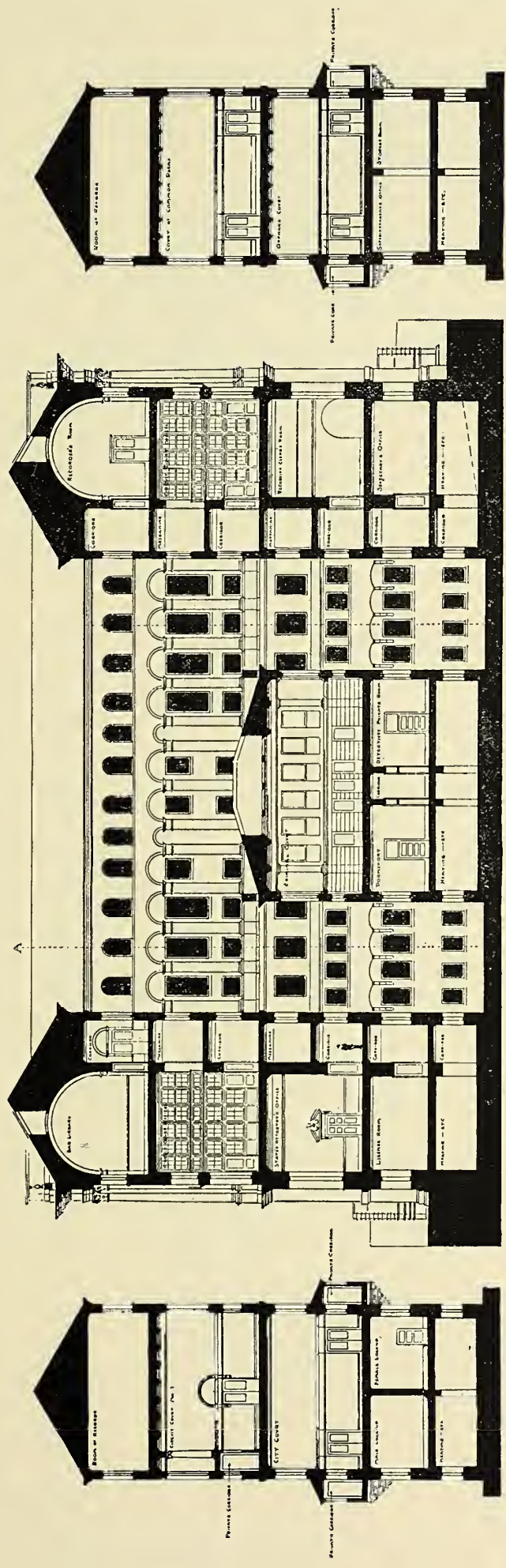
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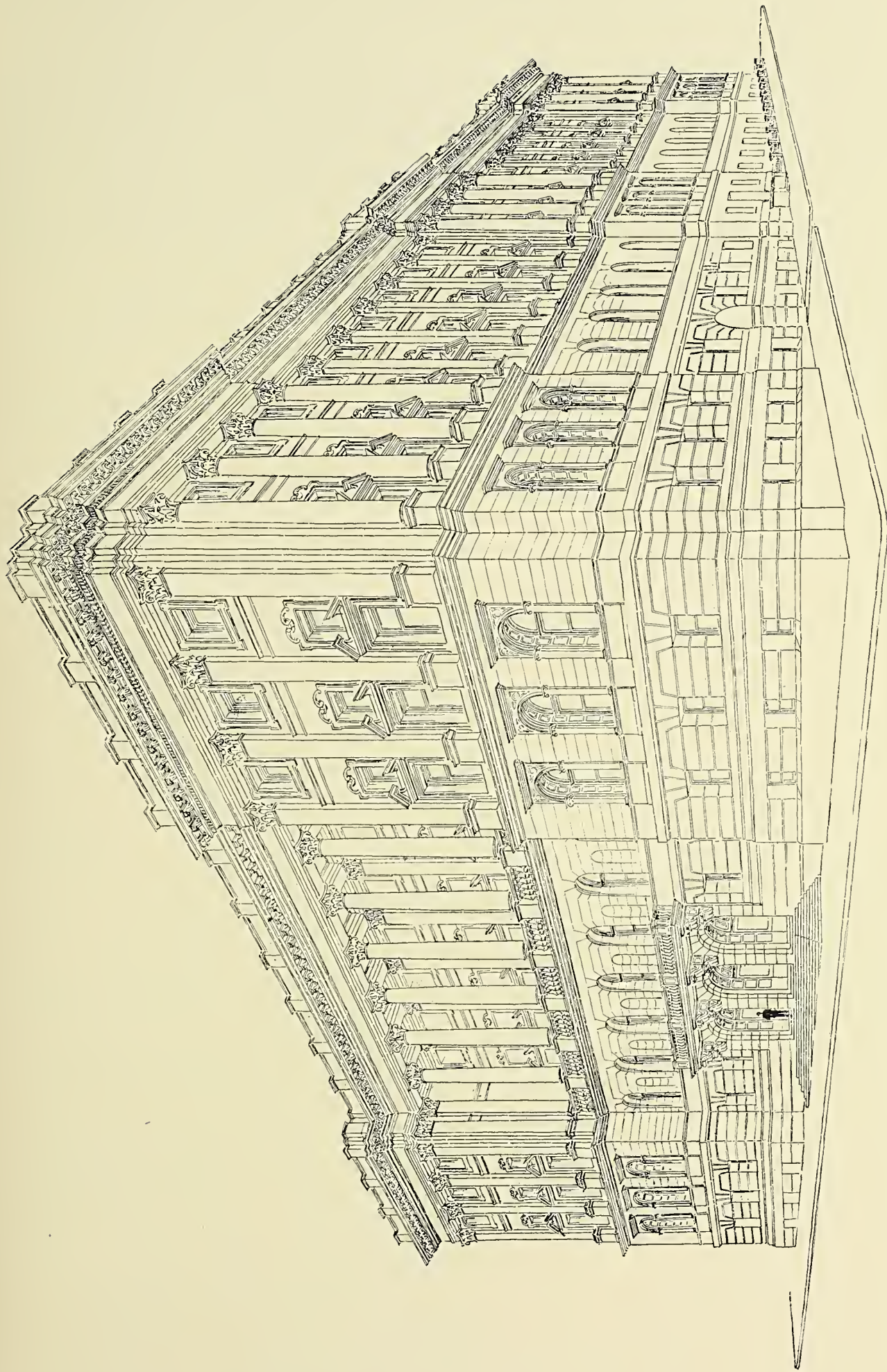


SECTION A-B

SECTION NORTH AND SOUTH

SECTION C-D

ACCEPTED DESIGN, BALTIMORE COURTHOUSE COMPETITION.
 WYATT & NÖLTING, ARCHITECTS, BALTIMORE.



ACCEPTED DESIGN, BALTIMORE COURTHOUSE COMPETITION.

WYATT & NÖLTING, ARCHITECTS, BALTIMORE, MARYLAND.

THE INLAND ARCHITECT AND NEWS RECORD

Vol. XXIV. SEPTEMBER, 1894. No. 2



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IN THE WEST.

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The Inland
Architect.
The Antwerp International Exposition is pronounced to be great in materials of construction, and to have an exceedingly strong representation of the building industry generally. THE INLAND ARCHITECT is represented in the Exposition by a file of recent numbers, and for the merit of the journal as evidenced in this display, has been awarded a gold medal, the highest honor, by the Jury of Awards. Although more than forty medals were awarded American papers, only four gold medals were given, two of which went to dailies, one to a literary weekly and the fourth to THE INLAND ARCHITECT.

Twenty-Eighth Annual Convention A. I. A. The twenty-eighth Annual Convention of the American Institute of Architects will be held in New York city, on Monday, Tuesday and Wednesday, October 15, 16 and 17, in the rooms of the New York Architectural League. It will be the most important meeting the Institute has held since that for consolidation. Besides the routine business, which will include the reading of interesting papers for the discussion of which ample time has been provided, the special work of forming a plan for the reorganization of the system of Chapters and their status, and the report of the arduous work done by the sub-committee of the Institute before Congress, will make the work of this convention of special importance to the entire profession. The work to be reported upon has been done by a few members, and at considerable sacrifice, and they should at least receive the indorsement of the profession by a full attendance at this convention.

Postponement of Government Architecture Bill. As announced last month, the committees on buildings and grounds, both of the house and senate, made favorable reports upon the passage of the bill. The treasury department also indorsed it, and it was urged to passage by one of our strongest statesmen, aided by, as far as could be learned, the unanimous support of congressmen and senators and its passage seemed certain. At this point conditions suddenly arose which left the measure, with many others, as unfinished business to be taken up by the next Congress, when it will probably become a law without opposition. That Secretary Carlisle has asked for the immediate resignation of Supervising Architect O'Rourke is significant. It will be interesting to the profession to know that for the past two months some of the foremost members of the profession have spent a large portion of their time at Washington in the interest of the bill, and that it was wholly through circumstances in no way connected with the bill, which is generally indorsed, that it failed to become a law during the session just closed.

The Proposed New County Building. The most extraordinary document that has ever appeared in the architectural annals of Chicago is the advertisement for bids for the erection of a new courthouse for Cook county, Illinois, which appeared on the fifth of the present month. The advertisement calls for bids, to be submitted September 26, just twenty-one days after the advertisement first appeared, which must fill the following requirements:

Each bid must be accompanied by a full set of plans and specifications for a complete building of the best class (the advertisement specifies in detail what kind of a building is wanted). The present courthouse — which cost \$2,600,000 about eighteen years ago — is to be taken by the contractor, who is to have possession January 1, 1895. He is to remove it and finish the new courthouse in two years. He must move and provide quarters for the whole county business and records for two years while erecting the new building, and pay the rent for the same; and then move the county business back into the new building, which must be completely finished. Bids are to be accompanied by a certified check for \$100,000. The successful contractor must agree to furnish a bond for \$2,500,000, and must give the names of the bondsmen in the proposal. To prepare all this, the architects and contractors are given exactly three weeks, to say nothing of coupling competitive designs with building bids. It is needless to add, for everyone in Chicago knows that the Board of County Commissioners already has in its possession a full set of plans, and a proposal to do all that is above stated, from a responsible party, for the sum of \$4,800,000. This has been published repeatedly in the daily papers, and was laid before a public meeting of the board the last week in August, all except the \$100,000 check and the names of the bondsmen for \$2,500,000. The reason for all this hurry is that the bid had been referred to a committee, and by it to the attorney of the board for an opinion as to whether or not it could be accepted; the attorney had given an opinion, on September 4, that the board could not make a contract unless it advertised for bids; that it should advertise forthwith, and act on the bids, even to the extent of making a contract with the lowest responsible bidder, in time to give a thirty days' notice before the regular November election, that the issue of the requisite bonds would be submitted to the people of the county. In accordance with this opinion the board immediately decided to advertise for bids, make a contract, and submit the issuing of bonds to the people in November next. This narrowed down the time for competition to twenty-one days. The commissioners will certainly get one bid. But there will be no competition, either in plans, temporary quarters, the erection of a new building, or the price to be asked for the whole. It is physically and absolutely impossible, even though the law may be complied with; and further comment will be unnecessary. The proposed \$5,000,000 will be sanctioned by the people if ever the proposition is voted for, for every laboring man in the city who can vote will vote for them. It is enough to know that the erection of a new courthouse means work, and plenty of it. As for the necessity for a new building, it is generally believed that it is needed, that this is a good time to build it, and that it would give work to thousands of men who are now idle. But is it justice to the architects and contractors, or the taxpayers of the county, that this method should be used?

**The Late
Arthur
Rotch,
Architect.** It is not the fortune of many architects to be born rich. Many young men with rich parents try to be architects and fail. This is because good architects, much like poets, are generally born to the art and not made. Such was Arthur Rotch, of Boston, whose recent death we now record. He was also one of those first mentioned. And

of the few who are possessed of this world's goods he was one who knew how to use them wisely and well. The name Rotch is well known to every architect and student of architecture in the United States who reads the architectural papers. It is indissolubly connected with what is known as the "Rotch Traveling Studentship," the only honor that can be conferred upon young architects in this country in any way approaching the "Prize of Rome." This magnificent endowment was founded by his brother, his sister and himself in 1883 as a memorial to their father. It is needless to say that this benefaction was incited by him, and grew out of the desire that deserving and meritorious students of architecture might share with him the advantages he had enjoyed of foreign travel and schooling. By this he will be mainly known as long as the profession of architecture exists. But he was also distinguished by many other works. As the partner of George T. Tilden he was well known to the readers of this journal through illustrations of their works. Besides many private works, they were architects for the Memorial Church of the Holy Spirit, at Mattapan, Massachusetts; the Church of the Messiah and Church of the Ascension, at Boston; the Art Museum for Wellesley College, and the Ridge Manual Training School, at Cambridge. He was a Fellow of the American Institute of Architects and one of its directors, and also a member of many local clubs and societies. Recently he was engaged as supervising architect of the new courthouse at Boston. Mr. Rotch was born at Boston, May 13, 1850, and graduated at Harvard in 1871. He was a student of architecture at the Massachusetts Institute of Technology and the École des Beaux-Arts at Paris. He has practised at Boston since 1880. His life was devoted not only to his own practice, but numberless unostentatious benefactions to his fellowmen, among which was the establishment and maintenance of a Department of Architecture in Harvard University. He was recently married, and leaves not only a widow but a brother and sister, and a host of personal friends with whom he was one of the most popular of men.

**Architectural
Muddle
in
Minnesota.** We have just seen a copy of the correspondence between Channing Seabury, Vice-President and Acting Secretary of the Board of State Capitol Commissioners of Minnesota, and H. W. Childs, Attorney-General of the State, anent the construction of certain clauses of the act relating to the compensation to be given to the architect and superintendent of the proposed new state capitol. The opinion of the attorney-general has excited a great deal of surprise and has received much deprecatory comment. It is evident that the legislature endeavored to establish the status of the architect to be employed as well as that of the superintendent, and to prevent any possible juggling on the part of the state commission about their fees, as well as to protect the architect in all matters relating to the ownership and use of the plans to be adopted. But they did it in such a bungling manner that the commissioners were in doubt as to the proper interpretation of the act. While asking the attorney-general for an opinion they seem to have assumed that he would approve the interpretation they had put upon certain clauses. We publish elsewhere in this number the formal protest of the Minnesota Chapter of the American Institute of Architects to the terms of the competition.

MECHANICAL HEATING AND VENTILATION.

BY M. C. HUYETT.

THIRD PAPER.

PROPORTIONING AREAS OF HEAT RISERS AND VENTILATING FLUES.

CONDITIONS are seldom alike; consequently no ironclad rule can be stated for initial velocities. The judgment of a heating and ventilating engineer, based on practical experience, is the only safe guide. Velocities must base on size and exposures of rooms, kind of occupancy, and location and distribution of displacement openings.

The arbitrary tables, in text-books, for "loss of heat units" per square foot of glass and wall exposures, based on air temperatures of 32° Fahr. and "natural means" for diffusion without ventilation, are absolutely worthless as factors in determining proportions for the parts of a mechanical heating and ventilating plant; their use is simply a scholarly method of guessing.

RULE FOR COMPUTING PIPE AND RISER AREAS FOR HEATING AND VENTILATION, BASED ON CHANGING AIR TIMES PER HOUR.

V=Velocity in feet per second.
T=Times per hour.

V.....	10'	15'	20'	25'	30'	35'	40'	45'
→								
28	.53	.4	.32	.26	.23	.2	.18
3	1.2	.8	.6	.48	.4	.34	.3	.26
4	1.6	1.06	.8	.64	.53	.46	.4	.35
5	2.	1.33	1.	.8	.66	.57	.5	.44
6	2.4	1.6	1.2	.96	.8	.68	.6	.53
7	2.8	1.86	1.4	1.12	.93	.8	.7	.62
8	3.2	2.13	1.6	1.28	1.06	.91	.8	.71
9	3.6	2.4	1.8	1.44	1.2	1.03	.9	.80
10	4.	2.66	2.	1.33	1.33	1.14	1.0	.89

RULE.—To ascertain square inches of flue area necessary to change the air in a room a required number of times per hour with a fixed initial air inflow, multiply height, width and length together—equals cubic feet of air space; strike off two figures from the right and multiply the remaining figures by figures, at chosen velocity, in column opposite the number of times per hour the air contents is to be changed.

Example.—A room 23 by 32 by 14 feet high, the air of which shall be changed four times per hour, with an initial velocity of 10 feet per second; $23 \times 32 \times 14 = 10,304$

1.6

61.8

103.

164.8

square inches flue area, to which should be added five to ten per cent for friction—dependent on length.

That gives area (in square inches) of heat riser, also ventilating flue for mechanical heating and ventilation.

To change the air in the room four times per hour requires 41.216 cubic feet per hour; at 10 feet velocity per second a flue with 164.8 square inches area has capacity for delivering 41.205 cubic feet per hour—not allowing for friction.

Velocity of air travel, and pressure, are factors in engineering which can be determined only when volumes of air required, exposures, and building details are known.

RULE TO DETERMINE AREA OF HEAT AND VENTILATING RISERS WHEN VENTILATION BASES ON A REQUIRED QUANTITY PER PERSON PER HOUR.

Multiply the number of persons to occupy by the quantity of air per hour to be supplied per person, the result will equal the quantity per hour required; find that quantity in the table, and in the column opposite the required flue area will be found.

At 10 feet initial velocity per second.

Factor, 432,000; no allowance made for friction.

7,000 cubic feet per hour = 28 square inches area.

9,500	"	"	"	"	38	"	"	"
12,500	"	"	"	"	50	"	"	"
19,439	"	"	"	"	78	"	"	"
23,576	"	"	"	"	95	"	"	"

25,000 cubic feet per hour = 100 square inches area.

26,250	"	"	"	"	105	"	"	"
27,500	"	"	"	"	110	"	"	"
30,000	"	"	"	"	120	"	"	"
32,500	"	"	"	"	130	"	"	"
35,000	"	"	"	"	140	"	"	"
37,500	"	"	"	"	150	"	"	"
40,000	"	"	"	"	160	"	"	"
42,500	"	"	"	"	170	"	"	"
45,000	"	"	"	"	180	"	"	"
47,500	"	"	"	"	190	"	"	"
50,000	"	"	"	"	200	"	"	"
52,500	"	"	"	"	210	"	"	"
55,000	"	"	"	"	220	"	"	"
57,500	"	"	"	"	230	"	"	"
60,000	"	"	"	"	240	"	"	"
62,500	"	"	"	"	250	"	"	"
65,000	"	"	"	"	260	"	"	"
67,500	"	"	"	"	270	"	"	"
70,000	"	"	"	"	280	"	"	"
72,500	"	"	"	"	290	"	"	"
75,000	"	"	"	"	300	"	"	"
77,500	"	"	"	"	310	"	"	"
80,000	"	"	"	"	320	"	"	"
82,500	"	"	"	"	330	"	"	"
85,000	"	"	"	"	340	"	"	"
87,500	"	"	"	"	350	"	"	"
92,500	"	"	"	"	370	"	"	"
97,500	"	"	"	"	390	"	"	"
100,000	"	"	"	"	400	"	"	"
105,000	"	"	"	"	420	"	"	"
110,000	"	"	"	"	440	"	"	"
115,000	"	"	"	"	460	"	"	"
120,000	"	"	"	"	480	"	"	"
125,000	"	"	"	"	500	"	"	"
130,000	"	"	"	"	520	"	"	"
135,000	"	"	"	"	540	"	"	"
140,000	"	"	"	"	560	"	"	"
145,000	"	"	"	"	580	"	"	"
150,000	"	"	"	"	600	"	"	"
155,000	"	"	"	"	620	"	"	"
160,000	"	"	"	"	640	"	"	"
165,000	"	"	"	"	660	"	"	"
170,000	"	"	"	"	680	"	"	"
175,000	"	"	"	"	700	"	"	"
180,000	"	"	"	"	720	"	"	"
185,000	"	"	"	"	740	"	"	"
190,000	"	"	"	"	760	"	"	"
200,000	"	"	"	"	800	"	"	"
210,000	"	"	"	"	840	"	"	"
220,000	"	"	"	"	880	"	"	"
230,000	"	"	"	"	920	"	"	"
240,000	"	"	"	"	960	"	"	"
250,000	"	"	"	"	1,000	"	"	"
260,000	"	"	"	"	1,040	"	"	"
270,000	"	"	"	"	1,080	"	"	"
280,000	"	"	"	"	1,120	"	"	"
290,000	"	"	"	"	1,160	"	"	"
300,000	"	"	"	"	1,200	"	"	"

At 15 feet initial velocity per second.

Factor, 648,000; no allowance made for friction.

7,500 cubic feet per hour = 20 square inches area.

11,250	"	"	"	"	30	"	"	"
15,000	"	"	"	"	40	"	"	"
18,750	"	"	"	"	50	"	"	"
22,500	"	"	"	"	60	"	"	"
26,250	"	"	"	"	70	"	"	"
30,000	"	"	"	"	80	"	"	"
33,750	"	"	"	"	90	"	"	"
37,500	"	"	"	"	100	"	"	"
41,250	"	"	"	"	110	"	"	"
45,000	"	"	"	"	120	"	"	"
48,750	"	"	"	"	130	"	"	"
52,500	"	"	"	"	140	"	"	"
56,250	"	"	"	"	150	"	"	"
60,000	"	"	"	"	160	"	"	"
67,500	"	"	"	"	180	"	"	"

75,000 cubic feet per hour = 200 square inches area.						
82,500	"	"	"	"	220	"
90,000	"	"	"	"	240	"
97,500	"	"	"	"	260	"
105,000	"	"	"	"	280	"
112,500	"	"	"	"	300	"
120,000	"	"	"	"	320	"
127,500	"	"	"	"	340	"
135,000	"	"	"	"	360	"
142,500	"	"	"	"	380	"
150,000	"	"	"	"	400	"
157,500	"	"	"	"	420	"
165,000	"	"	"	"	440	"
172,500	"	"	"	"	460	"
180,000	"	"	"	"	480	"
187,500	"	"	"	"	500	"
195,000	"	"	"	"	520	"
202,500	"	"	"	"	540	"
210,000	"	"	"	"	560	"
217,500	"	"	"	"	580	"
225,000	"	"	"	"	600	"
232,500	"	"	"	"	620	"
240,000	"	"	"	"	640	"
247,500	"	"	"	"	660	"
255,000	"	"	"	"	680	"
262,500	"	"	"	"	700	"
270,000	"	"	"	"	720	"
277,500	"	"	"	"	740	"
285,000	"	"	"	"	760	"
292,500	"	"	"	"	780	"
300,000	"	"	"	"	800	"
307,500	"	"	"	"	820	"
315,000	"	"	"	"	840	"
322,500	"	"	"	"	860	"
330,000	"	"	"	"	880	"
337,500	"	"	"	"	900	"
345,000	"	"	"	"	920	"
352,000	"	"	"	"	940	"
360,000	"	"	"	"	960	"

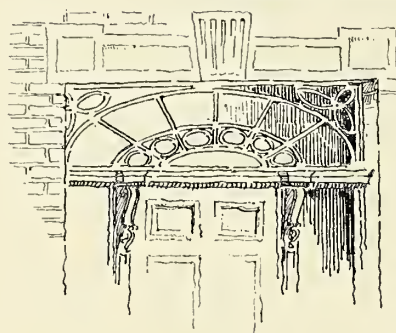
At 20 feet initial velocity per second.
Factor, 864,000; no allowance made for friction.

5,000 cubic feet per hour = 10 square inches area.						
7,500	"	"	"	"	15	"
10,000	"	"	"	"	20	"
12,500	"	"	"	"	25	"
15,000	"	"	"	"	30	"
17,500	"	"	"	"	35	"
20,000	"	"	"	"	40	"
22,500	"	"	"	"	45	"
25,000	"	"	"	"	50	"
27,500	"	"	"	"	55	"
30,000	"	"	"	"	60	"
32,500	"	"	"	"	65	"
35,000	"	"	"	"	70	"
40,000	"	"	"	"	80	"
45,000	"	"	"	"	90	"
50,000	"	"	"	"	100	"
55,000	"	"	"	"	110	"
60,000	"	"	"	"	120	"
65,000	"	"	"	"	130	"
70,000	"	"	"	"	140	"
75,000	"	"	"	"	150	"
80,000	"	"	"	"	160	"
85,000	"	"	"	"	170	"
90,000	"	"	"	"	180	"
95,000	"	"	"	"	190	"
100,000	"	"	"	"	200	"
105,000	"	"	"	"	210	"
110,000	"	"	"	"	220	"
115,000	"	"	"	"	230	"
120,000	"	"	"	"	240	"
125,000	"	"	"	"	250	"
130,000	"	"	"	"	260	"
135,000	"	"	"	"	270	"
140,000	"	"	"	"	280	"
145,000	"	"	"	"	290	"
150,000	"	"	"	"	300	"

155,000 cubic feet per hour = 310 square inches area.						
160,000	"	"	"	"	320	"
165,000	"	"	"	"	330	"
170,000	"	"	"	"	340	"
175,000	"	"	"	"	350	"
180,000	"	"	"	"	360	"
185,000	"	"	"	"	370	"
190,000	"	"	"	"	380	"
195,000	"	"	"	"	390	"
200,000	"	"	"	"	400	"
205,000	"	"	"	"	410	"
210,000	"	"	"	"	420	"
215,000	"	"	"	"	430	"
220,000	"	"	"	"	440	"
225,000	"	"	"	"	450	"
230,000	"	"	"	"	460	"
235,000	"	"	"	"	470	"
240,000	"	"	"	"	480	"
245,000	"	"	"	"	490	"
250,000	"	"	"	"	500	"
260,000	"	"	"	"	520	"
270,000	"	"	"	"	540	"
280,000	"	"	"	"	560	"
290,000	"	"	"	"	580	"
300,000	"	"	"	"	600	"
310,000	"	"	"	"	620	"
320,000	"	"	"	"	640	"
330,000	"	"	"	"	660	"
340,000	"	"	"	"	680	"
350,000	"	"	"	"	700	"
360,000	"	"	"	"	720	"
370,000	"	"	"	"	740	"
380,000	"	"	"	"	760	"
390,000	"	"	"	"	780	"
400,000	"	"	"	"	800	"

(To be continued.)

RAMBLING SKETCHES.
BY THEODORE OSCAR FRAENKEL.



SO much has been written about Colonial architecture by able draftsmen and architects, and by those living in the sections where it abounds, that it was not my intention to write or sketch Colonial work when I started on my trip for health; but, accumulating sketches while waiting for trains, filling in time after making water colors, sketching through windows on rainy days, I found myself possessed of a number of sketches from widely different parts of the country, and thought it well to give a few impressions of my observations of Colonial work and other work in general, such as would naturally come to one in a ramble, but not covering all that is to be seen.

Business being dull in the office, giving me a good opportunity for absolute rest, as the doctors prescribed, I took the land voyage



Mackinac
93

T O Fraenkel

to the Island of Mackinac. Right here let me say, it is something utterly impossible for me to be quiet on a trip of this kind. So, disregarding the good doctor's prescription, I set out with all the

necessary implements to torture nature—water colors, sketch block, India ink, pencils, etc. I knew my box contained the best colors that could be procured—colors that *could* deliver the best pictures in the world. The island was most charmingly cosmopolitan—any society you wished, from the élite of the “Grand” to the “*hoi polloi*” of the excursion hotels. I made fifteen water colors and half a dozen pencil sketches. I worked

alone for two weeks. I then had the pleasure of the company of Mr. F. L. and Mr. H. and wife, in our sketching trips. The latter was a clever worker. Five

would often exchange visits, but could get no nearer than fifteen feet to Mrs. H., for on seeing me approach she would wrap a cover over her block and meet me half way, being very modest about spectators.

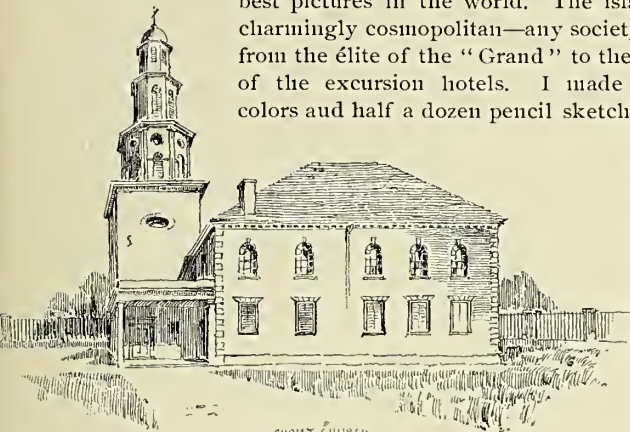
The sketches shown here are of Colonial work, built in Colonial times, the one of the fort being a special favorite with artists in general. The subject could not fail to please anyone. No doubt some of the readers can recall the exquisite sketch in water color made by Maratta. The fort mentioned was erected in 1740. Altogether, the Island is as quaint and old looking as can be found in the States. In the John Jacob Astor house I found some very fine old work—mantels and wainscoting, the arrangement of the panels in the doors; also the finish and design of the pulpit in the old Mission church. After a month's stay, we packed our traps for a visit to Cincinnati via Lake Huron. After a few weeks we returned to Chicago.

Being of a nervous disposition, and having another attack of illness, I ventured out again on a winter jaunt to the East and South: Baltimore, Maryland; Atlantic City (a delightful place in winter); Washington, D. C.; Georgetown; Alexandria, Virginia; Mt. Vernon. From the last-named places are some sketches showing the pleasant effect of Colonial work, and demonstrating the necessity of life and things, and the simple mode of getting what you want. In new-built cities, the general street view is harsh and grating on one's artistic sense—a jumble of everything under the sun, turrets, towers, gables, dormers, large high steps, low steps, eyewinkers, Renaissance, Moorish, Romanesque, round bays, square bays, octagon bays, and in some buildings you will find *all* the

by our forefathers. By all means keep the quiet architecture in the town if you want to keep the place. The present fashion of continental hats and capes seemed quite in keeping with the old place and very pleasing to the beholder. I wandered about the grand old spot, Mt. Vernon, with its innumerable accessories, kitchen, servants' quarters, spinning-house, carpenter shop, well-house, all separate from the main building, and built in Colonial feeling. The sketch shown is the garden front, or west entrance. The interior of the building, showing old Colonial work of Washington's time, and furniture of that period loaned by the different states, is kept in order by a force of most agreeable superintendents.

Naturally enough, it is reasonable to expect that we are improving on our architecture in planning our exteriors, but there is a lesson in the old work of the South. The necessities of winter will take care of themselves. In Georgetown, D. C., I made a few sketches showing the grouping and architecture of houses of the poorer class, and one a pretentious house of more elaborate work. The better class of old work has all been published in book form with photos and measured drawings, and is familiar to the architect and draftsman.

Why is it we make journeys to the old places and say they are quaint? The average native resents the intended compliment, and does not want to be considered as old as the work. He longs for some rockface to improve the general architecture, and leads us around to the latest structure built in new style. In some of our great cities we have big business blocks that are a libel on the



CHRIST CHURCH
ALEXANDRIA VA.



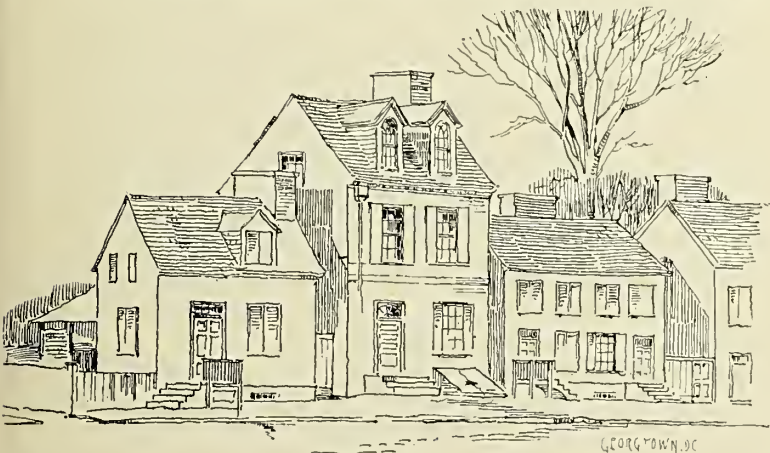
PO. F. A. A. A. A.

GEORGETOWN, D.C.

intelligence and culture of the people, and we are forced to wonder whether they have any culture. The most trying test of an architect's veracity is when a friend kindly volunteers to pilot him around to some new house. Often he is compelled to say (if he is honest), that it does not quite suit him, and soon he will get the reputation among his near friends that no one can do anything but himself.

Although the author has some work concealed in his city which will never be revealed as his own handiwork unless he is in a delirious state (but if discovered the responsibility would be thrown on his employer), nevertheless is looking for a job as a designer. It is a mistake to seek for novelty in architecture. Very few architects can deny that they encouraged their clients to adopt rockface for dwellings only a few years ago, and now are using all arguments to convince them that it is something else they want, and in the same breath bemoan the ignorance of their clients. Romanesque is certainly a doubtful quantity to use in dwellings; there is not enough rule or law in it; it is father of the worst monstrosities yet produced in this country. Some say, why not make your own laws, but we all know we are devoting time to something which will only last a few years, and very little will be designed from choice; still we will have jobs from clients whom we have educated to the idea of having a house that grew, as it were, out of the ground.

Everything that is brought to us is tempting. We go through it all, and are compelled to work in it whether we like it or not, as the general cry is for the prevailing style, which may have been produced successfully by the originator in this country. After a number of years we find ourselves working at old work again, with no superior knowledge of any style, but only imbued with a smattering (all in my time): first, of poor Renaissance,



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above in one. In the quaint old town of Alexandria, Virginia, the haunt of Washington, you will find the modern one-eyed brick “Eastlake” house sandwiched in between the old. It is a blessing for the old place that it has not grown faster; for there would be little left to interest one except the historical spots made famous

with heavy, indifferent moldings for interior and exterior work; Eastlake, or modern Gothic, interior in walnut with black and gilt furniture; then Queen Anne, heralded as the finest for dwellings, and then the Romanesque. Since its appearance we have had everything that could possibly be worked into architecture. No doubt the varied work has produced some superior buildings, but look at the work next to it! We wander down our beautiful lake drive and admire the fine houses, and suddenly we are confronted by a house that would make an appropriate design for a cliff dweller's habitation. In my boyhood home, which I visited some time ago, I found a new courthouse, the old lines of Colonial rejected, and supplanted by a big, round-shouldered Romanesque structure, with the apparent words on it, "Look at me!" An architect with a good design in competition could never get a foothold against the overwhelming argument of the many arches in the building.

In attempting to discourage the perpetration of some so-called styles of design, I do not wish it understood that I am preaching "Colonial," but I do maintain that there is a lesson in the old work, and the impression of it was received almost direct from good work on the other side of the water. I have often heard the saying that "all architecture is good," but I think the quotation was intended for architecture in its place or respective country, and not Moorish work in Mackinac.

Let us call for the education of the architect and draftsman. Let us turn to the pace set for us by the buildings of the Exposition. All were copies of old work, the grouping and design

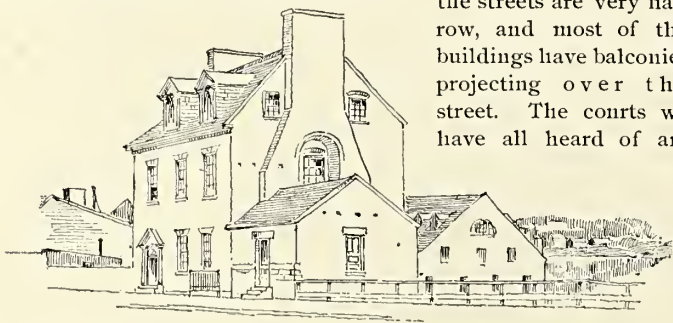


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being improved on to the highest degree. Some buildings were not quite up to the standard, but it was an infinite benefit to us to have some comparison at such a time, as, for instance, the old ways of transportation and the new. Often a client will have a house built of pretentious design, and in a year or two will build again, saying that the old house was not to his liking, that he will build something new, so called, all on account of the everlasting change in architectural treatment, and the old house still exists. Why are we afraid of designing in a rut? I see no objection to the rut, if it is in the proper direction, nor to having individuality in the work we produce. All our best known architects are recognized by their work. We certainly build our foundations to stay; why not grant the exterior the same benefit, and avoid the fads and freaks of the time? On the whole, it sums up: Build with care and discretion, consider the surroundings, and we will not go far wrong.

The old work of New Orleans is a great attraction to people from the North. It is mostly found in the French quarter, and is called by the natives Spanish Colonial. In this section of the city

the streets are very narrow, and most of the buildings have balconies projecting over the street. The courts we have all heard of are



reached directly from the sidewalk, through a wide arched entrance with doors. The walls and courts are principally plaster, the floor or ground is paved with square stone. The colors of the exterior were admirably shown by a Chicago artist in a recent exhibition held in this city. The sketches shown here were taken in this quarter of the city. It really is a most delightful pastime to wander through the old places and observe the habits and

customs of the people. The hospitable manner in which strangers are treated is a great encouragement to call again.

There is a certain honesty of purpose in the Colonial. Its symmetry and balance in most everything we find it difficult to reproduce, because of the different modes and ways of building, the materials used, and principally the radical change in planning our homes at the present time. Naturally enough, every time Colonial work is attempted we are apt to design in Renaissance, which is certainly traveling in the right direction. Colonial itself is only a license to do what we want, and this freedom we can use in domestic architecture. It is just that freedom that an American architect wants, but the trouble so far has been, we have had too much. Some who have never had the opportunity of visiting the old places would find it a delightful recreation, and would see there something in architecture that is truly American, in spite of all our efforts to produce something new for our homes.

THAT NEW STYLE OF ARCHITECTURE.

BY C. BRYANT SCHAEFER.

"The artist lays the foundations of his future and rises from the trenches of the present with the creations of his ideals."—*Libra Harmonicus*.

EVERY now and then a head arises above the architectural sea with the same old question: "How are we to arrive at a new style of architecture." It is a query that is becoming more classical than the solution. Each interrogator dwells at length upon the perplexing circumstances that are true enough, and when auditors have reached the lowest possible depths of despondency a set of expedients, rules or guides are produced, which are warranted by their originator to bring about speedy realizations. Some foam is thrashed and some bubbles rise upon the air that glint with color, but a little whiff and they are gone. In each case the exploit is like the hand waivings of the prestidigitator, pleasing to the beholders and alluring with apparent simplicity. Yet, somehow, the rank and file do not seem to have much success in extracting golden coin from their own curly locks.

Possibly it is too often overlooked by the architectural enthusiast that rules came after art epochs and never before, and also that æsthetic expression does not exercise in the neighborhood of disputation. The widest course is in a close contact with the inspirational development of the common, middle-class world and faith that the mysterious question is already solving itself upon the boards of the architectural designer.

All architectural styles have unconscious beginnings. The roots have been long hidden from view when the art has become architecture. The starting, deep down in the shadows of primordial man, first records sensations that are a revelation to the human.

The world contains three great schools of classic architectural art. They are the Mohammedan, the Greek and the Christian styles. Each is complete and finished. The growth of three distinct characteristics of man is represented. The developments of the ornamental arts are coeval with the life accomplishments of mankind.

Mohammedan or Saracenic art was the first in the scale. It is an effeminate style dependent upon circular expansion. "All over" patterns are either lavish or attenuated expressions that lose effectiveness in persistency. The arch is an excess, and the columns the extreme of exquisite. What the carver touches is more apt to drip with honeycombed ornateness than to accentuate construction. Embellished surfaces unfold the intricacies of their designs as the waves of court fountains once welled circles from their splashing centers. Nevertheless the hands that practiced oriental art in its perfection loved restraint before they attained ease in idealistic expression. The realistic state of ecstatic contemplation was the inspiration of eastern art. The dervish is an extreme type of the religious remainder.

The Greek classics are a declaration of masculinity. The erect column and the crossing lintel express a directness of purpose that is never concealed in refinement. Ornamentation is an expression of taste. Proportions are a revelation of unconscious judgment. The massive accomplishments of the Egyptians, the original intellectual conceptors, are crowned with elegance. Every line of both sculpture and architecture is a refinement of nature expressed without puerile dissembling.

It is not sufficient to admit that the Greek culmination is a reproach to modern attainments. Greek art represents the purity

of the Greek ideals of life and therein is the true reproach. Moderns have little faith in nature and in proportion nature does not reveal herself inspirationally.

Fortunately the present tendency of the designer is to study nature more and precedents reasonably less. The one who can grasp the former will some day make splinters of the latter.

It has been unfortunate for the modern idea of Greek culture that poetical ideals have been judged by materialistic standards. It is a consistent fault to materialistic ages. They lack the inspirational comprehension. The Greeks who aided in the academic development of philosophy were themselves deficiencies; the artist who has to dissect his feelings in order to inspire others is in a deplorable condition. Socrates depicted faith as well as it can be and gave it the precedence it should always receive. Abuse, theorism and skepticism, and finally sophism, follow in all courses of degeneration from original inspirational conditions, Greek or otherwise. They are futilities of the weak. As man again discovers in himself that which is above the intellectual orders, he will again know and comprehend the truth in Greek ideals. They perfected the column and lintel style of architecture by beautifying precedents to a finality.

Christian architecture is Gothic architecture. The persistency of man in search of the higher planes of human possibilities sent the pinnacles of cathedral art skyward from the fields of Europe. The world arose in emotional expression. Convenience of life and mental rationality were minor considerations. Warrior and beggar flocked together in the Crusades that swept over Europe. They were all actuated by the same impulse of sentiment. Romanism was a bit of red tape that fluttered after. Under a similar inspiration the art of building developed its third style. Produced is a more apt word than developed, with present knowledge of Gothic ornament, for it has not yet been traced to its origin. It is a matter the importance of which the archaeologist may alone realize. Unhappily the custom of researchers is to make artistic migrations dependent upon circumstantial intercourse. The fact is slighted that like circumstances produce similar results, and also, in the higher sense, it has not yet been determined what the source of inspirational development is. That is a principle that may be disclosed in the language of Gothic ornament when its consecutiveness is established independent of other arts.

The Byzantine, Romanesque, Roman and other styles of architectural art, are departures from the Saracenic and Greek arts. The Gothic also has variations among Venetian and French developments. They represent transitional phases of civilization. The three great styles represent the fundamental principles of mankind. Who, in considering the modern architectural question, has so comprehended these as to be able to give the human consciousness a necessary fourth principle? Without that a new style of architecture cannot be originated. Possibly the depth at which architectural art has its foundations is not sufficiently recognized.

The ornamental art delineates the progress of mankind. It will neither allow itself to be prinked up for deception, nor will it start new departures upon false ideals. A sympathetic mind can point out the sincere work in modern art and instantly turn to the representation of that school in contemporary thought. The most agreeable circumstance of the present day is the adaptiveness which the designer is discovering in Greek art. To be sure the rudiments have to be thoroughly comprehended in order to obtain facility, but the result cannot fail of perfectly expressing surrounding influences. Departures from grammatical precedents are discernable which are in perfect accord with modern progressiveness. Eastern principles to a limited extent are also being adopted in modern architecture, and one also finds the accompanying characteristic thought. Christianity is always present, but it has ceased to offer opportunities to the architectural designer equal to his capabilities.

A COURSE of instruction in the art of clayworking and ceramics has been opened at the Ohio State University, in accordance with the recent special enactment of the general assembly of the state. The course of study comprises two years of three terms each, devoted to physics, physical geography, chemistry, algebra, geometry, carpenter, smith and machine shopwork, clayworking, general and economic geology, and mechanical drawing. Students must be not less than sixteen years of age and will be examined for admission in arithmetic, geography, grammar and orthography. Edward Orton, Jr., F.M., is director of this department of the university. The entrance examinations were held at Columbus, September 10 and 11, 1894; fall term commenced September 12.

COMPETITION, ROBERT CLARK TESTIMONIAL.

THE competition is open to architectural draftsmen under thirty years of age, residents of the United States, and not practicing architects.

The author of each design must execute all drawings without assistance, and nonadherence to these conditions will cause the rejection of the design or designs in question.

The awards will be made by the Adjudicating Committee on the "Robert Clark Testimonial" competition, and are: First prize, gold medal; second prize, silver medal; third prize, bronze medal.

Those designs receiving honorable mention will receive special bronze medals.

The prize drawings are to become the property of the Chicago Architectural Sketch Club.

PROGRAMME.

A design for the façade of an "Art Club" house in a Classic or Renaissance style, the building to be situated on a residence boulevard.

The building shall be eighty feet in width, situated on a lot one hundred feet in width and at a distance of twenty-five feet from the inside line of the sidewalk. The lot is not situated on a corner, and little or no attention is to be paid to the sides of the building, beyond indicating the proper return of the cornice, etc., in the perspective.

The rooms which require expression and which take their light from this front are:

First Story—An entrance located in the center and a single room on either side, to be used as reception and reading rooms.

Second Story—A large banquet hall located in the center, and a small unimportant room on either side, which can be lighted from the front or from the sides at the discretion of the competitor.

Third Story—The third story is devoted to bedrooms, to be arranged at will.

The drawings required are an elevation, at a scale of $\frac{1}{4}$ of an inch to a foot, rendered in line with pen and ink without shadows or other embellishments, and a perspective rendered at will. They are to be mounted upon stretchers or heavy cardboard, 29 by 40 inches, and must be marked with a device or *nom de plume*. An envelope marked in a similar manner, and containing the name and full address of the author, with place and date of birth, must accompany each design.

Drawings must be delivered to John Robert Dillon, Secretary, Chicago Architectural Sketch Club, at the clubhouse, 274 Michigan avenue, Chicago, on or before Thursday, November 15, 1894, charges to be prepaid. All drawings not receiving prizes will be returned at the expense of the contributor.

W. B. MUNDIE, Chairman,

FRANK L. WRIGHT,

IRVING K. POND,

Adjudicating Committee on the "Robert Clark Testimonial."

ASSOCIATION NOTES.

THE Secretary offers for sale copies of the Proceedings of the Twenty-seventh Annual Convention of the American Institute of Architects and the World's Congress of Architects, holden at Chicago, July 31, and August 1, 2, 3, 4 and 5, 1893, containing a series of papers prepared by those immediately engaged in designing and directing the construction of the "White City," besides other papers by native and foreign architects, on subjects of paramount interest. The list of authors on the World's Columbian Exposition are: D. H. Burnham, Director of Works; E. C. Shankland, Chief Engineer; Frederick Law Olmsted, Landscape Architect; W. H. Holcomb, General Manager of Transportation; Charles E. Foster, Mechanical Engineer; R. H. Pierce, Electrical Engineer. The volume contains over four hundred pages, and will be sent postage prepaid to any address upon receipt of \$1.25. Edition limited. Alfred Stone, Secretary, 49 Westminster street, Providence, Rhode Island.

MINNESOTA CHAPTER A. I. A.

WHEREAS, The State of Minnesota proposes to erect a new capitol building at St. Paul, Minnesota, under an act of the legislature entitled "An Act to Provide for a New Capitol for the State of Minnesota," being Chapter Two of General Laws of 1893 as amended by Chapter Three; and

WHEREAS, The said law has been interpreted by the Board of State Capitol Commissioners to mean that the architect selected under the said law shall receive in full compensation for his services in designing and supervising the construction no more than the sum of $2\frac{1}{2}$ per centum of the cost of the building; and

WHEREAS, The attorney-general of the state has given his opinion that the said board is authorized under the law "to pay nothing for the design," but only for the supervision of its construction; and

WHEREAS, A committee representing the Minnesota Chapter of the American Institute of Architects did appear before the said Board of Commissioners and did fully and at length set forth and respectfully urge a reasonable interpretation of the law, that the architect should be employed for full professional services in the customary manner and at the usual compensation, or at least receive compensation for his designs and for his supervision separately, and that the amount to be paid for such supervision

should be a reasonable sum as fixed by the Board under the provisions of the law; and did suggest and urge other points as set forth in an address then placed before the Board, and furthermore presented to the Board additional suggestions, all to the end that the competition proposed by the law, and the selection of the architect, should be upon such conditions as would secure for the state the best professional talent; and

WHEREAS, The said suggestions, except in comparatively minor matters, were all rejected; now, therefore,

Be it resolved, By the Minnesota Chapter of the American Institute of Architects, that we do protest against the action of said Board, and we do hereby state it to be our opinion and belief that the terms and conditions under which the competition has been instituted are unwise and not for the best interests of the state; that they are contrary to the usual and established customs among architects and that the compensation allowed is entirely inadequate, and that under such conditions the state cannot hope to obtain the services of architects of the ability and character which the importance of the building demands.

TEXAS STATE ASSOCIATION.

The Texas State Association of Architects held their election of officers at Waco, Texas, on August 6, resulting in the following: Nathaniel Tobey, Galveston, president; C. A. Gill, Dallas, first vice-president; Sam P. Herbert, Waco, second vice-president; J. Riely Gordon, San Antonio, secretary; A. A. Messer, Fort Worth, treasurer. Executive Committee—Alfred Mueller, Galveston, chairman; J. S. Moad, Dallas; M. R. Sanguinet, Fort Worth; A. N. Dawson, Fort Worth; P. S. Rabitt, Galveston.

AMERICAN INSTITUTE OF ARCHITECTS.

A meeting of the Executive Committee of the American Institute of Architects was held in the Institute rooms and those of the New York Chapter, on Monday, August 13, at 3:30 P.M. In the absence of President D. H. Burnham, Mr. Edward H. Kendall was elected chairman, and the reading of the records of the last meeting was dispensed with.

The secretary reported that he had received applications for charters from the Southern California, Washington State and Brooklyn Chapters, each of which had submitted a copy of its constitutions and by-laws, all of which were approved and charters granted.

As a result of the last letter ballot the following were declared elected Fellows of the American Institute of Architects: William G. Malcomson, Detroit, Michigan; William E. Higginbotham, Detroit, Michigan; William Warren Sabin, Cleveland, Ohio.

The following persons having made application in due form, indorsed by the officers of their several Chapters, were provisionally accepted as Fellows:

John Ludwig Wees, St. Louis, Mo.
Joseph Paul Annan, St. Louis, Mo.
Louis Mullgardt, St. Louis, Mo.
Craig McClure, St. Louis, Mo.
Alexander M. Stewart, St. Louis, Mo.
William Henry Foster, St. Louis, Mo.
Alfred M. Baker, St. Louis, Mo.
Frederick Widmann, St. Louis, Mo.
Caspar Dethard Boisselier, St. Louis, Mo.
Robert William Walsh, St. Louis, Mo.
Edmund A. Manny, St. Louis, Mo.
Edwin S. Radcliffe, Duluth, Minn.
Charles T. Mott, Brooklyn, N. Y.
D. C. Ernest Laub, New York, N. Y.
George L. Morse, Brooklyn, N. Y.

The secretary was directed to issue a letter ballot with a slight variation in its form to enable the use of the Australian system of voting.

The secretary was directed to submit to the next meeting of the Board of Directors a form for Chapter reports.

The report of the committee to consider the relations of the Chapters to the Institute was received with suggestions as to amendments to the constitution and by-laws, and the secretary was directed to issue a letter ballot on the former and print the latter, and send it to the Fellows of the A. I. A. not less than thirty days before the next annual convention.

Circular of Information No. 1, with reference to the next annual convention, to be held in New York, October 15, 16 and 17, was submitted and order of proceedings discussed.

The progress of the bill to regulate the designing of government buildings and the status of the claim of the heirs of the late Thomas U. Walter, LL.D., were reported upon.

Adjourned. ALFRED STONE, Secretary, A. I. A.

MOSAICS.

THE firm of Brede & Mueller, Detroit, Michigan, has dissolved partnership. Architect H. A. Brede will continue to transact business at the old office, Rooms 39 and 40 Kanter building.

THE facilities for study at the Scientific School of Harvard University are to be increased this year by the addition of courses in mechanical engineering, mining engineering and architecture. The engineering will be under the charge of Professor Hollis, lately of the Engineer Corps of the Navy; and Mr. H. Langford Warren, a prominent Boston architect, is to conduct the course in architecture.

OUR ILLUSTRATIONS.

The Old Swedish Church, Wilmington, Delaware. E. Eldon Deane, New York, Del.

Residence for J. H. Walker, Detroit, Michigan. Jenney & Mundie, architects, Chicago.

Residence for William Knight, Hinsdale, Illinois. Flanders & Zimmerman, architects, Chicago.

Baltimore Courthouse Competition. Design submitted by Bruce Price, architect, New York.

Baltimore Courthouse Competition. Design submitted by D. H. Burnham & Co., architects, Chicago.

Summer Residence, Mrs. Lewis Francis, Lake Champlain, New York. Frank T. Cornell, architect, New York.

Denver Architectural Sketch Club Competition for a Six-Room Schoolhouse. First place, E. R. Rice; second place, W. Cowe.

Front Elevation, St. Martin's Church, Chicago. L. Becker, Mainz, Germany, Schlacks & Ottenheimer, Chicago, associated architects.

Denver Architectural Sketch Club Competition, Rendering from a Photograph. First place, Harry Thomas, Del.; second place, W. Cowe, Del.

Sketches—New Orleans, La.; Mount Vernon, Va.; Alexandria, Va.; and Mackinac, Mich.; illustrating article, "Rambling Sketches." T. O. Fraenkel, Chicago.

Photogravure Plate: Residence of Robert W. Patterson, Chicago. McKim, Mead & White, architects, New York.

PHOTOGRAVURE PLATES.

Issued only with the Photogravure edition.

Kent Chemical Laboratory, Chicago University.

Residence of W. Albert Swasey, architect, St. Louis.

The Metzert Building, Washington, D. C. Robert Stead, architect.

Rheinstrom Brothers' Building, Cincinnati. A. O. Elzner, architect.

Residence of C. A. Young, St. Louis. W. Albert Swasey, architect.

Ryerson Physical Laboratory, Chicago University. Henry Ives Cobb, architect.

Greenwood Avenue School, Chicago. Flanders & Zimmerman, architects.

Remodeled Residence of F. J. Schnyler, Hinsdale, Illinois. G. W. Ashby, architect, Berwyn, Illinois.

NEW PUBLICATIONS.

THE ARCHITECTS' DIRECTORY FOR 1894.—This valuable reference book has just appeared from the press of William T. Comstock. It is put up in convenient shape and bound in red boards with gilt stamp, making quite a striking appearance. The work bears marks of very careful preparation, and aims to give, classified by states and towns, all the architects in practice in the United States and Canada. In giving architects' names the membership in the architectural societies is indicated by figures in brackets following each name; (1) indicating membership in the American Institute of Architects; (2) the Architectural League of New York; (3) Royal Canadian Academician. This will be found a valuable feature, not only interesting to architects, but to those following up the work of associated architects. The influence of architectural associations in raising the standard of architecture in this country is well known, and this feature of the directory will be regarded important. A selected list of the principal dealers in building materials and appliances is also given, which will be found useful to architects. To manufacturers and dealers the list of architects will be found of great value in addressing circulars and sending samples. The work is well got up, clearly printed and of convenient size. The price is \$1.

SMALL HOSPITALS, by A. Worcester, M.D.; and Hospital Architecture, by William Atkinson, architect. New York: John Wiley & Sons, 1894.

This book is full of interesting information on the various points concerned, and being short, is likely to be read. All or nearly all of the statements made are correct; this, for instance: "So little attention is paid to sanitary matters, that less money is usually granted to hospitals and boards of health for this special purpose of fighting contagious diseases than is granted for the fireworks for public holidays." This is all true; we often spend more to gratify our vanity than to furnish our needs. Information is given as to how to interest the public in the starting of a hospital. Shrewd remarks are made, as follows: "If the movement is to be a popular movement it must not be handicapped by the appearance of its being Mrs. Jones' or Mr. Brown's blessing thrust upon the community." This remark is applicable to other enterprises than hospitals. Skeleton by-laws and rules and the methods of starting hospitals are given. A chapter is given on the medical staff and of what school it should be. It is free from bitterness and on the whole sensible, yet to the layman it is somewhat amusing. All the discussions of allopathy and homoeopathy interest the doctors, but carries consternation, not unmixed with entertainment, to outsiders. "The whole intent of hospital construction is to secure the best possible sanitary qualities together with such conveniences as will allow the greatest economy in administration." This is said to be the architect's business, but it is only partially so. It is not especially the architect's business to prescribe the exact plan or arrangement of a hospital, or of any

other building. That duty primarily belongs to the person or persons who are to control the uses of the building and who are presumed to understand (and be responsible for) what they want. It is impossible for an architect to be well versed in all the needs of a hospital, theater, library, office building, or other of the many different structures that he may be called upon to erect; moreover if he did understand all these needs at any one moment, he could not do so for any length of time, for they are eternally changing. It is the architect's duty to inquire, from those who do know the needs, as to what they are, and after having been fully informed of them to prepare his design so that such needs may be satisfied in the most convenient, thorough and economical manner. Of course, an architect having had experience in one line of building will be able to greatly help the principals engaged in it. It is stated that each room should have a ventilating (or chimney) flue out from it. This is as necessary as the introduction of air, for air cannot be made to enter a room unless some way is provided for the escape of the air already in. It would be well if architects and people generally realized this; if they did there would be more flues in houses than are usually built. The last pages of the book are occupied by "Suggestions for Hospital Architecture," and are accompanied by a design for a small hospital. The suggestions are well adapted for the purpose.

HINTS ON THE ART OF LANDSCAPE GARDENING. By Thomas Hawkes, Member of Illinois Chapter, American Institute of Architects. Chicago: J. C. Winship & Company.

This is the title of an interesting and practical little volume which has recently come to our table. Mr. Hawkes speaks by the card, for he is rich in experience in the art of which he treats, having studied and practiced landscape gardening both abroad and at home. His success in planning and superintending the extension of the Sheridan Road through the Gilbert Hubbard estate was so phenomenal as to call forth words of warmest praise from all who have seen the wonderful improvement there effected. A combination of woods and ravines not easy to cope with had discouraged the trustees of the estate. It was thought that the tremendous wash of water down the ravines in times of rainstorm would render it impossible to drain the road, but Mr. Hawkes accomplished this perfectly by the construction of a series of open box drains on each side of the roadway. The road now presents a most pleasing aspect, lined as it is with a handsome carpet of green clover in place of the usual bare clay banks. It is from such achievements as this that Mr. Hawkes has gathered the experience which he condenses into this little volume on landscape gardening. His principles are enunciated in plain language with strict adherence to common sense reasonings, and are a refreshing change from the too often obscure treatment of this interesting subject. The keynote of the treatise is contained in its first sentence: Landscape gardening is an art, and he who in its practice accomplishes the best results is the one who keeps closest to nature, develops all its possibilities and applies his art to nature in such a way that the art is not manifest." The landscape gardener must be somewhat of an architect and engineer as well, but his art must not be obtrusive. Geometric figures must be carefully excluded. Roads must wind naturally; trees must not be planted too regularly; flower beds set on the checker board plan are an abomination; artificial lakes must contain natural bays and islands; in short, nature must not be crowded from her seat if she is to be relied on to lend beauty to the reconstructed scene.

BUILDING OUTLOOK.

OFFICE OF THE INLAND ARCHITECT, }
CHICAGO, September 10, 1894.

The business situation as it exists today can be summed up in very few words. After eighteen months of uncertainty and depression, and the enactment of new fiscal legislation, the business interests desire to see where they stand before launching out into new enterprises. There is an enormous amount of idle capital, earnings have been greatly reduced, a vast amount of capacity is idle, the rate of interest is low in the East and high in the West. There are a multitude of new enterprises under consideration which promise to employ hundreds of millions of dollars in their prosecution. These are the salient features of the situation. It is probable that with the enormous productive capacity, prices will remain low, and that capital will be only gradually reemployed. There are several sound reasons for this opinion. One unfavorable possibility is that the conditions point to labor strikes next season; but that trouble will be met when it arrives. The depression of the past year and a half has not left us without some benefits besides experience. Prices have been permanently reduced, the possibility of speculative values has been greatly lessened. There will be less unwarranted and illegitimate competition in the future, less inflation of values, less piling up of credits, more secure methods of business and greater safety and security in the doing of business. These advantages will compensate in a measure for the losses and disappointments suffered. It is probable that public attention will be next directed to the question of a permanent and safe currency. But, as to the immediate future, it can be safely said that there will be a gradual improvement in the volume of business, but not necessarily in prices of products. The means for turning out machinery have been very greatly increased during the past year or two. Manufacturing is being scattered over wider areas, to the advantage of producer and consumer. The tendency in cost of production and in cost of transportation is downward, and while the disposition to form protective trusts is still active, it is evident that these organizations are less able to charge unfair prices than a few years ago. The trend of events is in the direction of benefit to the consumer, the small capitalist, and business man, though there yet remain serious difficulties and great problems to engage the careful attention of the people, for a satisfactory settlement.

SYNOPSIS OF BUILDING NEWS.

Architects are invited to furnish for publication in this department monthly or occasional reports of their new work before the letting of contracts. Reports of buildings costing less than \$5,000 are not published.

Buffalo, N. Y.—Architect J. H. Coxhead: For the Delaware Avenue Baptist Church, a one-story church building; size, 76 by 170 feet; brick and stone; cost, \$100,000.

Architect A. Esenwein: For City of Buffalo, a three-story school building; brick and stone; cost, \$40,000.

Chicago, Ill.—Architect F. B. Abbott: For Messrs. Felix & Marston, at Sixteenth and Arthur streets, a five-story and basement warehouse, 115 by 170 feet in size; to have a pressed brick and stone front, plumbing, electric light, elevators, etc.

Architect J. M. Van Osdel: For C. W. Dabb, two-story addition and remodeling the Commercial Hotel, at the northwest corner of Lake and Dearborn streets; to be of pressed brick and stone, have all the modern sanitary improvements, steam heating, electric light, elevators, marble and tile work, etc. Same architect made plans for a four-story and basement store and flat building, 42 by 100 feet in size, to be erected at 4028, 4030 Cottage Grove avenue, for Robert E. Ismond and others; the front will be of pressed brick and stone; will put in all the modern plumbing, mantels, gas fixtures, electric light, etc.

Architect D. Mahaffey: For William L. Lange, at 1309 Western avenue, a two-story store and flat building, 22 by 62 feet in size; to be of frame and brick, have bathrooms, closets, mantels, gas fixtures, furnace, etc. For L. Loecher, Roscoe street, Lake View, a two-story residence, 22 by 50 feet in size; to be of frame construction, have hardwood interior finish, mantels, gas fixtures, etc. For C. Loescher, at School street, a two-story flat building, 22 by 80 feet in size; to be of frame, have all the sanitary plumbing, etc.

Architect J. W. Kennevel: For J. I. McCauley, at the northeast corner of Jackson boulevard and Leavitt street, a five-story apartment house, 124 by 102 feet in size; to have a front of pressed brick, trimmed with Ashland variegated brown stone; have the interior finished in oak and cypress, all the modern sanitary improvements, marble wainscoting, tile floors, steam heating, electric light, etc.

Architect Thomas H. Mullan: For James M. Gnrk, at West Polk street, near Sacramento avenue, a two-story flat building, 24 by 50 feet in size; to have a front of pressed brick and stone, all the sanitary improvements, mantels, gas fixtures, furnaces, etc.

Architect Frank Randak: For Charles Pitte, at Blue Island avenue, between Eighteenth and Nineteenth streets, a four-story and basement store and flat building, 25 by 88 feet in size; to have a stone front and stone bay windows, the interior to be finished in white pine, have all the modern sanitary improvements, gas fixtures, mantels, steam heating, electric light, cement floors, marble wainscoting and stairs. For K. Cerny, a two-story residence, 25 by 52 feet in size, to be erected at Ewert street near Garfield boulevard; to be of stone front and stone porch, have slate roof, hardwood finish, mantels, gas fixtures, modern plumbing, steam heating, etc.

Architect Louis T. Shipley: For D. S. McMullan, at Asbury avenue and Wilder street, a two-story, basement and attic residence, 38 by 70 feet in size; to be of frame with stone basement, have hardwood interior finish, and mantels, gas and electric fixtures, etc. Also making plans for M. E. church, 60 by 97 feet in size, to be erected at the corner of Evanston avenue and Buckingham place; to be of stone front and pressed brick on the returns, have plumbing, heating, etc.

Architects Sierks & Mayer: For Henry Tewes, a two-story, basement and attic residence; 31 by 56 feet in size; to have a beautifully designed buff Bedford stone front, interior finish in hardwood, mantels, gas and electric fixtures, heating, etc.

Architect J. P. Hubbell has finished plans and is ready to take estimates on the handsome two-story, basement and attic residence, 32 by 47 feet in size, to be erected at Sheridan Park, Ravenswood, for W. L. Abbott; it will be of frame construction and stone basement, have all the modern sanitary plumbing, hardwood interior finish and mantels, gas and electric fixtures, speaking tubes, electric bells, furnace, etc.

Architects Fraenkel & Schmidt: For M. King, at 575 North Clark street, a four-story store and flat building; 45 by 115 feet in size; to be of pressed brick and stone front, have hardwood interior finish and mantels, gas and electric fixtures, all the modern sanitary arrangements, heating, etc.; the first floor will be used for the North Division Postoffice. For W. D. Fischer, remodeling residence, at 321 Chicago avenue, into a three-story modern flat building; to be of pressed brick and stone front, have hardwood interior finish, mantels, gas and electric fixtures, electric bells, speaking tubes, etc.

Architect Ira C. Saxe: For P. L. Prendergast, a three-story and basement store and flat building, 50 by 78 feet in size; to be erected at Sixty-third and Morgan streets; to be of handsome cut stone front and pressed brick on the side, with stone trimmings and copper bay windows and cornice, have the interior finished in yellow pine, all the modern sanitary improvements, mantels, gas fixtures, electric wiring, etc.

Architect D. A. Blythe: For F. Reed, at Twelfth street near Douglas Park, a three-story and basement store and flat building; 35 by 118 feet in size; to have a stone front, hardwood finish, mantels, gas and electric fixtures, marble wainscoting and tilework, steam heating, etc.

Architects Patton & Fisher: For Mrs. Kate Healy, at 454 Vincennes avenue, a two-story basement and attic residence; 25 by 55 feet in size; to have a stone front, hardwood finish, mantels, the best of sanitary improvements, gas fixtures, etc.

Architects John Hendricks & Co.: For F. C. Crimble, a two-story and basement flat building; 22 by 50 feet in size; to have a stone front, hardwood finish, mantels, gas fixtures, ranges, fireplaces, etc.; to be erected at Lawdale avenue near West Ohio street. Also four cottages, at Mead street near West Huron; to be of pressed brick and stone fronts, have sinks, water closets, mantels.

Architect F. R. Schock: For A. N. Bennett, at Maywood, a two-story, basement and attic residence; 22 by 40 feet in size; to be of frame construction with stone basement, have hardwood interior finish, mantels, electric light, furnace, etc. For John Hofford, at Maywood, a two-story, basement and attic flat building; 24 by 51 feet in size; to be of frame with stone basement, have the sanitary plumbing, mantels, electric light, etc. For the Proviso Land Association, twenty two-story frame houses, to have stone basements, the sanitary improvements, electric light, etc. Also made plans for a \$20,000 addition to Ed Norton's residence, at Maywood; will put in mosaic floors, elegant hardwood interior finish, mantels, electric and gas fixtures, sanitary plumbing, hot-water heating, etc.

Architect W. H. Lamson: For Frank Weager, on Clark street, near Edgewater avenue, a two-story store and flat building; 51 by 65 feet in size; to have a stone front, hardwood trim, mantels, gas fixtures, electric wiring, etc. Also made plans for a double three-story apartment house; 45 by 80 feet in size; to be erected at Washington boulevard near Leavitt street; to be of stone front, have all the modern sanitary improvements, hardwood finish, mantels, gas fixtures, ranges, etc.

Architect J. W. Ackerman: For M. M. Bart, a two-story, basement and attic residence, 28 by 48 feet in size; to be erected at Edgewater; to be of frame with stone basement, have hardwood interior finish, mantels, gas fixtures, ranges, fireplaces, etc.

Architect Sam Halls: For J. A. Slnpe, a two-story flat building, to be erected at 5743 Washington avenue; to be of Bedford stone front, have hardwood interior finish and mantels, gas fixtures, furnace, etc.

Architect T. C. Goudie: For L. Simon, at Willow street, a two-story store and flat building, sixty-five feet front; to be of pressed brick and stone, have the modern improvements, gas fixtures, etc.

Architects Jones & Stoddard: For William S. Goss, a two-story frame house, 25 by 45 feet in size; to be built on Howard avenue near Madison street, Austin; to have a stone basement, sanitary improvements, gas fixtures, furnace, etc. For W. C. Swern, a two-story and basement flat building, 25 by 60 feet in size; to be built on West Adams street between Spaulding and Honian

avenues; to be of stone front, have all the modern plumbing, mantels, gas fixtures, laundry tubs, furnaces. For A. J. Hunt, a two-story and basement flat building, 25 by 78 feet in size; to be built at 979 Warren avenue; to be of stone front, have hardwood interior finish and mantels, gas fixtures, furnace.

Architects Swift & Hall: For William Flynn, at 460 North avenue, remodeling residence into four-story store and flat building, 25 by 65 feet in size; to be of pressed brick and stone front with copper bay windows and cornice; will put in all the modern sanitary plumbing, gas fixtures, mantels, etc.

Architect J. L. Meriam: For W. N. Pettie, at Monroe street, a three-story and basement dwelling, 26 by 57 feet in size; to have a handsome stone front, all the sanitary improvements, gas fixtures, etc.

Architect J. E. O. Pridmore: For E. A. Wood, a two-story, basement and attic residence, 32 by 75 feet in size; to be erected at Vincennes avenue and Forty-fifth street; to be of pressed brick and stone front, have hardwood interior finish, mantels, slate roof, copper cornice, all the best of modern plumbing, gas and electric fixtures, furnace, etc.

Architect C. M. Palmer: For J. Van Bezey, a four-story store and apartment building, 48 by 100 feet in size; to be erected at 212 to 214 Blue Island avenue; to be of stone front, have all the sanitary improvements, gas fixtures, Georgia pine finish, etc.

Architect George S. Kingsley: For W. A. Krudler, at 279 Belden avenue, a three-story and basement flat building, 24 by 65 feet in size; to be of stone front, have all the modern plumbing, gas fixtures, electric wiring, mantels, etc.

Architect F. W. Kirkpatrick: For Mrs. Minnie Allen, a two-story and basement flat building, 25 by 68 feet in size; to be built at 2195 Adams street; to have a stone front, hardwood finish and mantels, gas fixtures, ranges, fireplaces, etc.

Architect William F. Pagels: For Henry Horman, a two-story flat building, 25 by 70 feet in size; to be built at the northwest corner of Hoyne avenue and Cornelia street; to be of pressed brick and stone front, have the sanitary plumbing, mantels, gas fixtures, furnaces, etc.

Architect Frederick Ahlschlager: For M. Phillips, a four-story store and flat building, 25 by 90 feet in size; to be erected at the corner of Eleventh and Morgan streets; to be of pressed brick and stone front, have all the sanitary improvements, mantels, etc.

Architect Perley Hale: For J. J. Shutterly, at Fifty-first street near Lexington avenue, a three-story and basement apartment house, 44 by 70 feet in size; to have a front of stone, hardwood interior finish and mantels, gas fixtures, steam heating.

Architect John T. Hetherington: For R. Goldstein, at Thirty-first and Dearborn streets, a four-story and basement store and flat building, 50 by 56 feet in size; to be of stone and pressed brick front, have the modern plumbing, gas fixtures, mantels, etc.

Architect A. G. Ferree: For F. J. Kerr, a two-story frame house, 24 by 46 feet in size; to have a tile basement, the sanitary plumbing, mantels, gas fixtures, etc.; to be built at Seventy-fifth street near Harvard. For M. Byers, a double two-story residence, 35 by 64 feet in size; to be built at Seventy-sixth street and Emerald avenue; to be of stone front, hardwood finish, and mantels, gas fixtures, laundry fixtures, bells, speaking tubes, etc.

Architect Otto A. Kupfer: For John Ariens, a two-story and basement stone front flat building, 21 by 54 feet; on West Fifteenth street opposite Talmau avenue; all improvements; taking figures. For William Neff, a three-story and basement stone front flat building, 25 by 58 feet, on Sawyer avenue, north of Douglas boulevard; making plans; all the modern improvements.

Architects Dinwiddie & Newberry: For F. P. Sheridan, a two-story and basement flat building, 25 by 60 feet in size; to be built at Nineteenth and Jefferson streets; to be of stone front, have all the sanitary improvements, mantels, gas fixtures, furnaces, etc.

Architects A. M. F. Cotton & Son: For M. Almy, a four-story and basement store and flat building, 125 by 100 feet in size; to be erected at the corner of Twenty-fifth and State streets; to have pressed brick and stone fronts, all the sanitary arrangements, gas fixtures, mantels, etc. For Cyrus Bentley, at Elmhurst, a two-story, basement and attic residence; to be of frame, with stone basement, have hardwood interior finish and mantels, electric light, modern plumbing, furnace. For F. E. Herdman, at Winnetka, a two-story, basement and attic residence, 35 by 40 feet in size; to be of frame construction, with stone basement, have hardwood interior finish, plumbing, gas fixtures, furnace, etc.; it will be in the Colonial style of architecture, and shows a very pretty residence.

Architects Brompton & Lawson: For W. H. Bryant, two three-story residences, 25 by 60 feet in size each; to be erected at Malden and Arlington streets, Sheridan Park, Ravenswood; they will be of stone and pressed brick, have elegant hardwood interior finish and mantels, electric and gas fixtures, the best of sanitary improvements, steam heating, etc.; cost \$15,000.

Architects Murphy & Camp: For Mr. Devine, a three-story store and flat building, 48 by 84 feet in size; to be erected at West Ravenswood Park and Sunnyside avenue, Ravenswood; to be of handsome stone front, have hardwood finish and mantels, gas fixtures, the best of modern plumbing, steam heating, bells, speaking tubes, etc.

Architect C. S. McMundy: For Messrs. Reeves & Morgan, two two-story residences, 30 by 32 and 35 by 38 feet; to be erected at Sixty-fifth street and Ellis avenue; to have pressed brick and stone fronts, hardwood finish, mantels, gas fixtures, furnaces, etc.

Architect C. M. H. Vail: Made plans for four two-story houses, 20 by 45 feet in size each, now being erected at Nos. 215 to 221 Wilson avenue, for Messrs. Churchill & Vail; pressed brick and stone fronts, the sanitary plumbing, mantels, gas fixtures, sideboards, furnaces, etc. Also making plans for a two-story flat building, to be erected on Wolcott street, Ravenswood; to be of pressed brick and stone front; have the modern plumbing, gas fixtures, mantels, steam heating, etc.

Architect Henry Ives Cobb: Let contract to W. E. Frost Manufacturing Company for the erection of the two-story residence, 40 by 60 feet in size, to be erected at Fifty-ninth street and Ellis avenue, for President Harper, of the Chicago University; to be of stone front, have hardwood interior finish, hot-water heating, electric light, etc.

Architect A. F. Hussander: For T. J. O'Neill, at Lincoln, corner of George street, a three-story and basement store and flat building, triangular shape, 135 feet front; to have two fronts of buff Bedford stone, interior to be finished in Georgia pine, have all the modern sanitary improvements, gas fixtures, mantels, steam heating, etc.

Architect Louis Martens: For Sibbilla Atzel, at 503 Belden avenue, a three-story apartment house; to have a stone front, hardwood finish, mantels, gas fixtures, steam heating, etc.

Architects Newman & Demoney: For John Bobel, six two-story flats, to be built near Gross Park; frame, plumbing, mantels, etc. For E. P. Grace, at Oak street near Larrabee street, a four-story store and flat building, 50 by 130 feet in size; to have a pressed brick and stone front, gas fixtures, steam heating, etc. For W. Walkup, at 688 Fullerton avenue, a three-story flat building, 25 by 91 feet in size; to have a buff Bedford stone front, hardwood interior finish and mantels, the modern sanitary improvements, gas fixtures, electric wiring, laundry fixtures, steam heating.

Architect Theodore Lewandowski: For William Janiszewski, a three-story and basement flat building, 22 by 100 feet in size, to be built at Ashland avenue and Julian street; to be of pressed brick front and sides with St. Lawrence marble trimmings, have all the sanitary improvements, gas fixtures, mantels, laundry fixtures, furnaces, etc. For John Warszinski, at Robey and Forquer streets, a three-story, basement and attic flat building, 23 by 100 feet in size; to be of pressed brick and stone front, have sanitary improvements, Georgia pine interior finish and mantels, bells, speaking tubes, furnaces, etc.

Architect H. H. Waterman: For J. Hedrich, a four-story store and flat building, 77 by 75 feet in size, to be erected at 4840-4846 State street; to be of pressed brick and stone front, have the sanitary improvements, gas fixtures, steam heating, etc.

Architect Francis J. Norton: For Miss Agnes Wilson, a three-story residence, 29 by 48 feet in size, to be erected at Oak Park; it will have a handsome stone front, hardwood finish and mantels, electric light, steam heating, etc.

Architect J. T. Fortin: For Miss Fitzgerald, at 284 Homan avenue, a three-story flat building, 25 by 66 feet in size; to be of stone front, have the sanitary plumbing, mantels, gas fixtures, laundry fixtures, electric bells, speaking

tubes, etc. For P. Hogan, at 79 Seeley avenue, a two-story store and flat building, 25 by 65 feet in size; to have a handsome stone front, hardwood interior finish and mantels, gas fixtures, hot-water heating.

Architect Paul Gerhardt: For H. Pfabe, a two-story residence, 28 by 65 feet in size, to be erected at Webster avenue; it will have a front of buff Bedford stone, hardwood interior finish and mantels, gas and electric fixtures, furnace, etc.

Architects Sierks & Mayer: For J. W. Grape, at Irving Park, a two-story residence, to be of frame with stone basement; have hardwood interior finish, mantels, gas fixtures, bells, speaking tubes, furnace.

Architect C. A. Strandel: For C. J. Isaacson, a four-story store and apartment house, 23 by 80 feet in size; to be erected at 1729 Sherman place; the front will be of pressed brick with buff Bedford stone trimmings; all the sanitary improvements will be put in, Georgia pine interior finish, mantels, gas fixtures, furnaces. For Frank Ryder, at Willey avenue near Lake street, a two-story flat building, to be of pressed brick and stone front, have the modern plumbing, gas and electric fixtures, furnaces, etc.

Architects Swift & Hall: For A. Koch, on Flournoy street, a two-story and basement flat building, 50 by 50 feet in size; to be of buff Bedford stone front, Georgia pine interior finish, mantels, gas fixtures, etc.

Architect Robert C. Berlin: For C. Burcky, a handsome three-story residence, 38 by 63 feet in size; to be erected at Indiana and Sixtieth street; the front will be of stone, pressed brick and terra cotta; the interior to be finished in hardwood, have all the best of plumbing, mantels, gas and electric fixtures, bells, speaking tubes, furnace, etc.

Architect George Grussing: For J. P. Miles, at Adams street near St. Louis avenue, a two-story, basement and attic flat building, 24 by 67 feet in size; to be of handsomely designed front in blue Bedford stone; have hardwood interior finish and mantels, the best of modern plumbing, gas fixtures, furnaces, etc.

Architects Huchl & Schmidt: For Henry Gesellbracht, a two-story, basement and attic residence, 25 by 60 feet in size; to be erected at Austin; to be of frame, with stone basement, have hardwood finish, mantels, gas fixtures, electric wiring, etc. For Mr. William H. Bradley, a four-story addition to residence at the corner of Oak street and La Salle avenue; will put in all the modern plumbing, hardwood finish, passenger and freight elevators, heating, etc.

Architect Henry Ives Cobb: For Lake Forest Academy, a three-story dormitory, 40 by 60 feet in size; of stone front, hardwood finish, electric light, steam heating, etc. For the Chicago Dock & Canal Company, a six-story warehouse, 100 by 100 feet in size; to be erected at 362 to 372 Illinois street; to be of common brick, mill construction, have steam heating, elevators, electric light, plumbing, etc.

Cleveland, Ohio.—Architects Coburn & Barnum have under way quite extensive alterations at the Euclid avenue residence of Mr. C. W. Bingham.

Architect W. D. Benes has just let contracts for the mason, and carpenter work of a residence for Norton Horr, to be built on Oakdale street.

Architect A. N. Oviatt reports a 48 by 60 feet frame residence; all modern improvements, to be built in South Brooklyn, Ohio, for H. C. Gates; cost \$7,000.

Work just being begun upon a brick block for W. S. Tyler and Judge Hamilton, on Miami alley; it will be used when finished for a carriage repository; cost \$15,000; John Richardson is the architect. Mr. Richardson has also a \$15,000 three-story block, on Erie street, for Dr. Herrick; the building will be used for stores on the first floor and apartments above.

Architect J. B. Shengle reports a \$5,000 frame residence for Dr. R. W. Bntter, to be built at the corner of Wade Park avenue and Genesee street; all modern improvements, with a complete electric lighting and bell equipment. For J. B. Guthrie, he has two frame dwellings, modern improvements; to cost about \$6,000.

Architect C. F. Schweinfurth has commenced the erection of a \$100,000 telephone building, at the corner of Seneca and Champlain streets, for the Cleveland Telephone Company.

Municipal officers and architects are interesting themselves as to how plans shall be obtained for the new city hall, which is soon to be erected.

Detroit, Mich.—Architects Malcombson & Higginbotham: For Board of Education, two-story twelve-room brick school building, on Regular and Military avenues; size 76 by 143 feet; cost \$30,000. For Elmwood Cemetery Association, a two-story superintendent's residence; to cost \$5,000.

Architects Mason & Rice: For Masonic Temple Association, an eight-story brick and stone masonic building, to be built corner Lafayette and First streets; to cost \$22,500.

Architects Stratton & Baldwin are preparing plans for the Park and Boulevard Commission, for two large stone and iron bridges in Belle Isle park.

Architect Henry J. Rill: For the Sacred Heart Roman Catholic Church Society, a two-story brick and stone church, at Imley City; size 34 by 74 feet; cost \$10,000.

Architect S. C. Falkinburg: For Frank D. Hovey, a two and one-half-story brick and stone double residence, on Canfield avenue, near Third street; cost \$9,000.

Architect E. C. Van Leyen: For Joseph Berry, a two-story frame residence, at Marine City, Michigan; size 36 by 58 feet; cost \$8,500. For George S. McFarland, four-story office building with hall on top floor, at Oscoda, Michigan; size 40 by 80 feet; cost \$34,000.

Louisville, Ky.—Architects Drach, Thomas & Bohne report the following work: Residence for Mrs. M. S. Kohler, Third and Hill streets; to cost \$8,000; brick, stone and terra cotta. Residence for Mrs. Moore, Cherokee Park; to cost \$8,000; brick with stone trimmings, metal roof. Residence for Mrs. F. C. Hays, Second street, near Oak street; to cost \$10,000; brick, stone and terra cotta, metal roof. Store and flats for George M. Kean, Sixth and Kentucky streets; to cost \$9,000; brick, stone and terra cotta, metal roof. Addition and extension Central Kentucky Asylum, Lakeland, Kentucky; to cost \$65,000; brick and stone, metal roof. Store and offices for Lindsay & Brichett, Owington, Kentucky; to cost \$6,000; brick and stone, metal roof. Store and lodge-room for Trautman Brothers, Shepardsville, Kentucky; to cost \$8,000; brick, stone and metal roof. Residence for Mrs. Anna Thomas Wheat; to cost \$5,000; location Victoria place; brick, stone and metal roof. Warehouse for Ahrens-Ott Manufacturing Company; to cost \$12,000; location Sixth and A streets; brick and stone, composition roof. Residence for Mrs. H. Frankel, First street, between Breckinridge and College streets; to cost \$6,000; brick, stone and metal roof.

Pittsburgh, Pa.—Architects George S. Orth & Bros.: For H. D. Wallace, a three-story brick store and office building; to cost \$40,000.

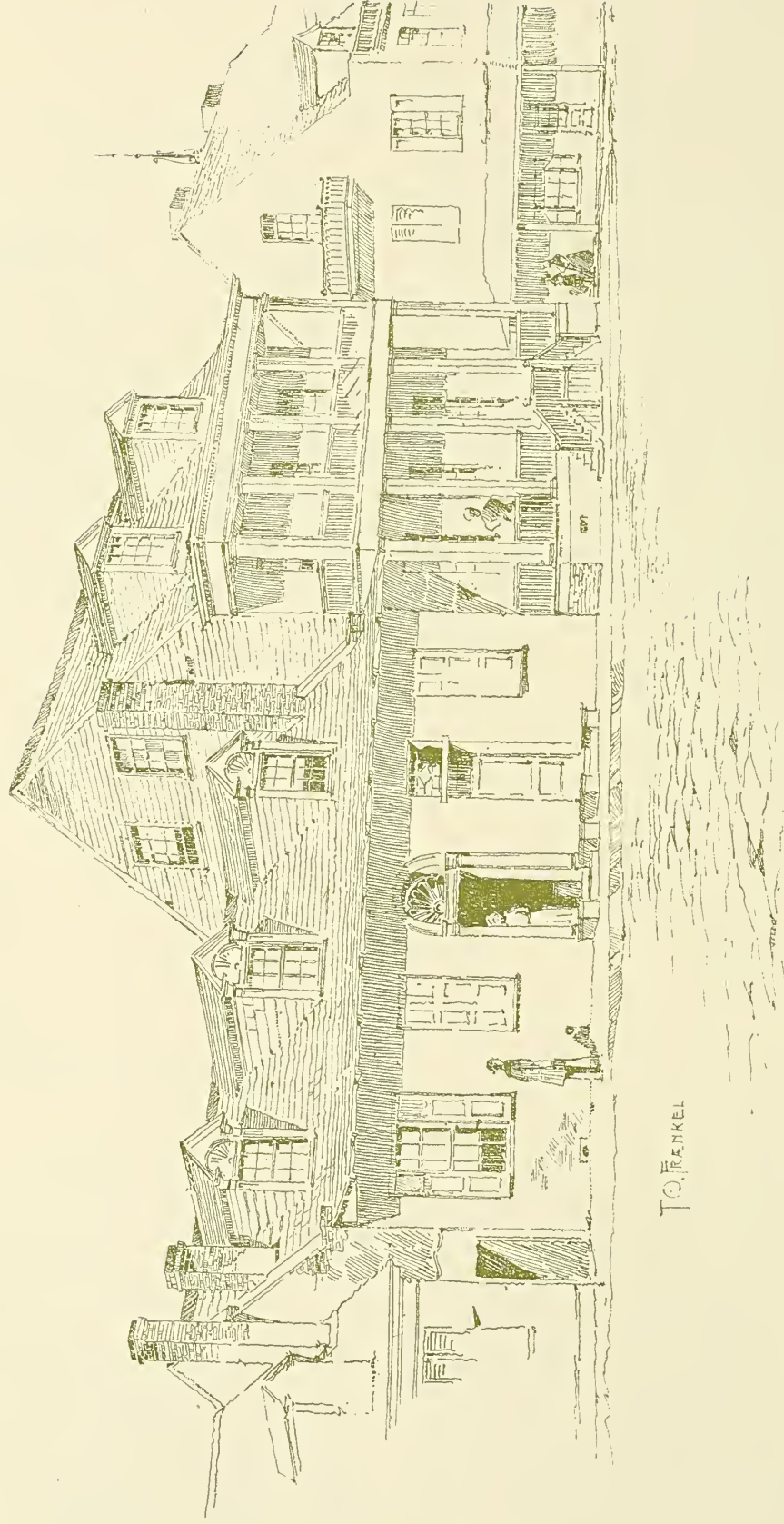
Architect J. H. Campbell: For the Seventh Presbyterian Church, a two-story church building, size 40 by 60 feet; brick and stone; to cost \$15,000.

Rochester, N. Y.—Jay Fay and O. W. Dryer report the following work: Alterations and additions to residence of Dr. G. V. Gilbert, on Meigs street. Residence for Miss Grace A. Shearman, to be built on Buckingham street, corner Park avenue; cost, \$7,500. Additions and alterations to residence of T. J. Yawger, at Seneca Falls, New York. House for Charles T. C. Pierce, at Flint street. Residence for Charles M. Thorns, to be built on Argyle street; first story, St. Lawrence marble; remainder of frame. Two houses for Mrs. M. A. Jeffrey, corner Meigs street and Park avenue; first story, St. Lawrence marble; to cost \$16,000. Colonial house for Mr. Marcus Hirschfeld, on Scio street. Three-story Colonial house, to be built on Bates street; finished in hardwood; cost \$12,000. Village house for E. V. Lowe, at Genesee, New York. Additions and alterations to Union Free School, at Honroy Falls, New York; cost about \$7,500. Apartment house for four families, for Mrs. March; to be built on Court street; cost \$6,000.

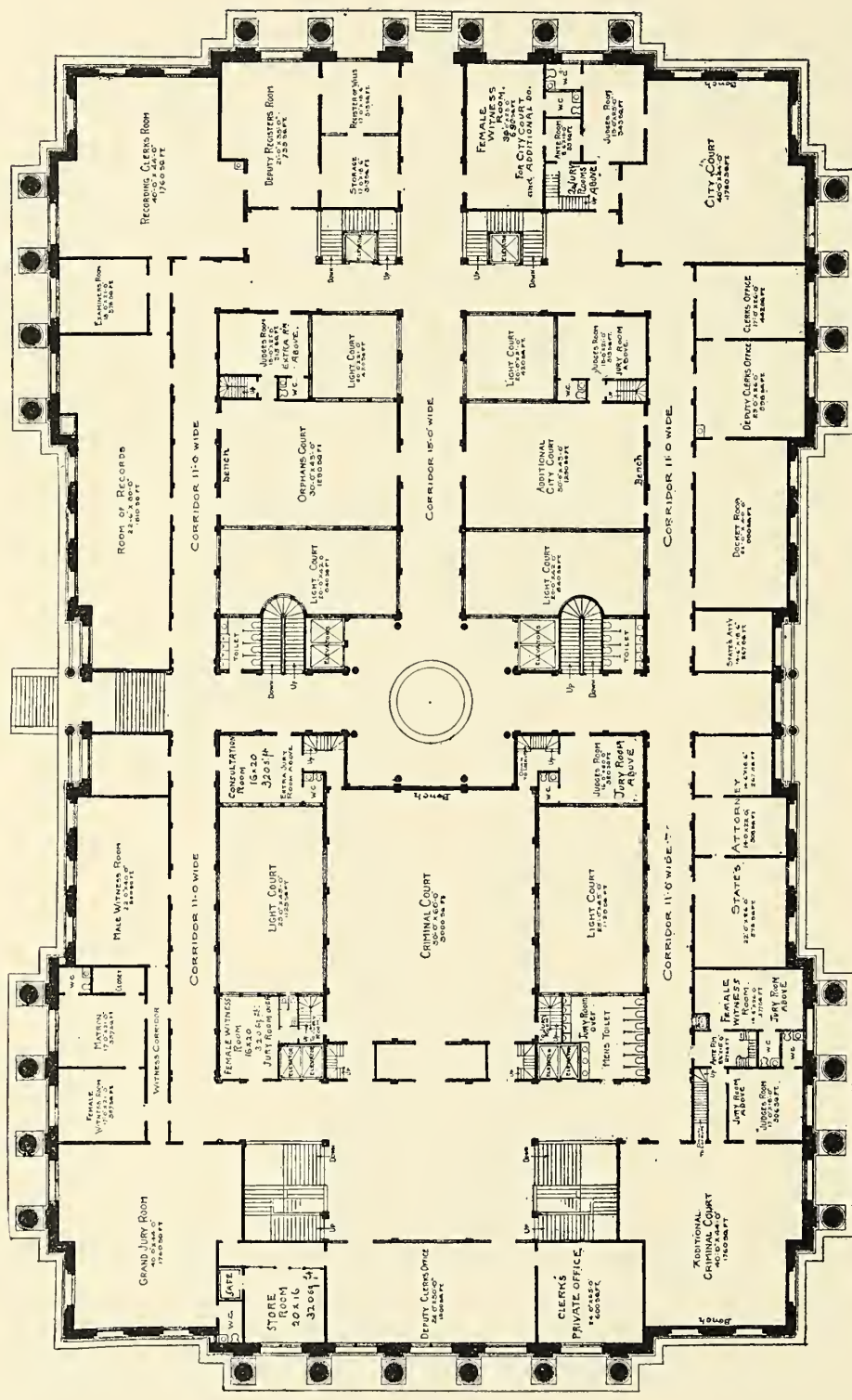
Architects Walker & Briggs have prepared plans for a Colonial house for E. B. Leary; to be built on Burr street; cost \$5,000. Colonial house for Frank N. Kondolf; to be built on Seneca Parkway; finished in hardwood throughout; cost \$10,000.

Architect Orlando K. Foote has prepared plans for a new market building for Joseph Schleyer's Sons, on East Main street; building, 41 by 128 feet; cold storage and freezing rooms with the ammonia system; market to have marble floor, side walls wainscoted with marble, with quartered oak, paneled ceilings and side walls, marble counters, lighted with gas and electric combination fixtures; cost \$20,000.

NEW ORLEANS,
94

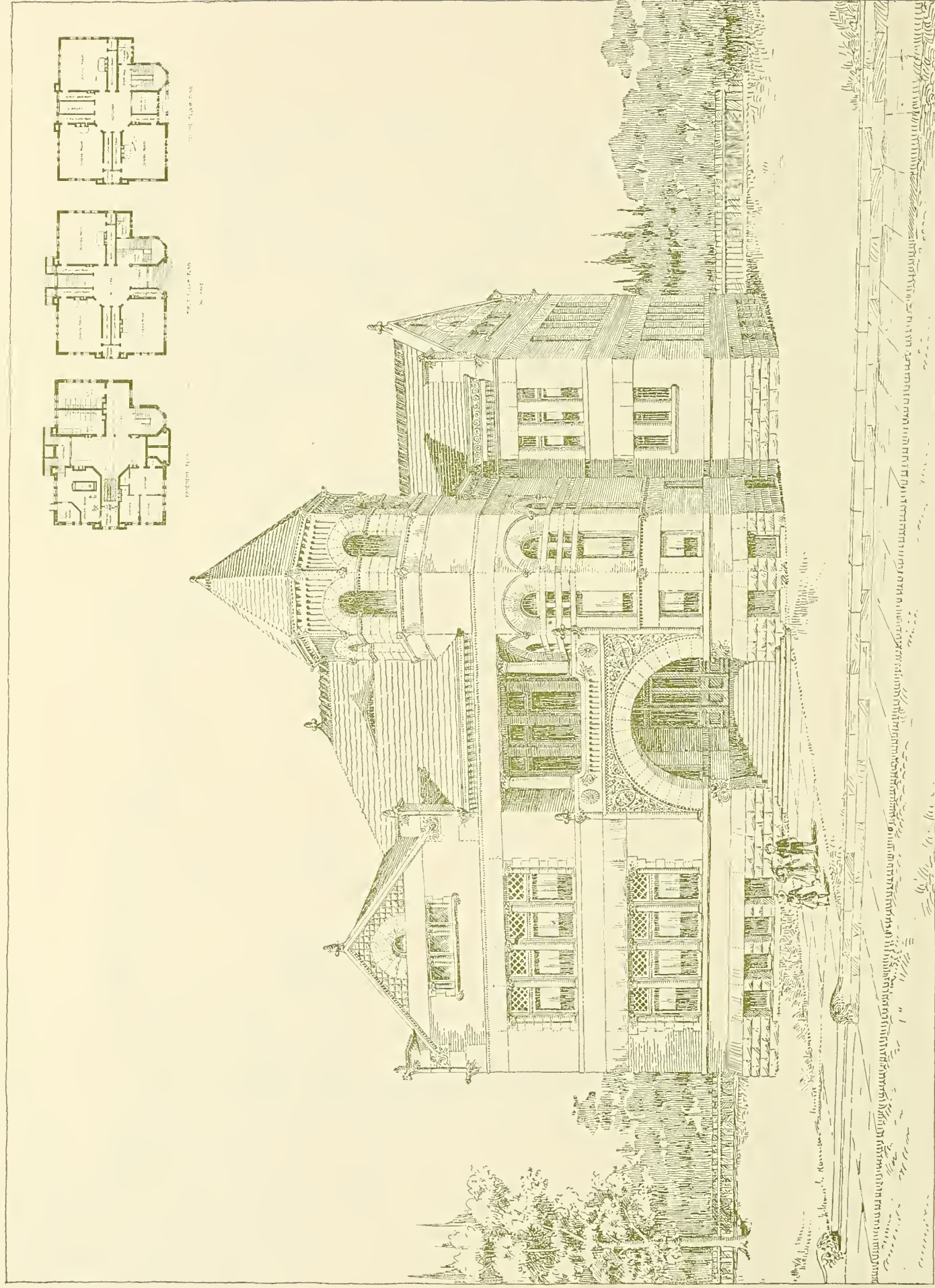


ILLUSTRATING ARTICLE, "RAMBLING SKETCHES," BY T. O. FRAENKEL, IN THIS NUMBER.



FIRST FLOOR PLAN.

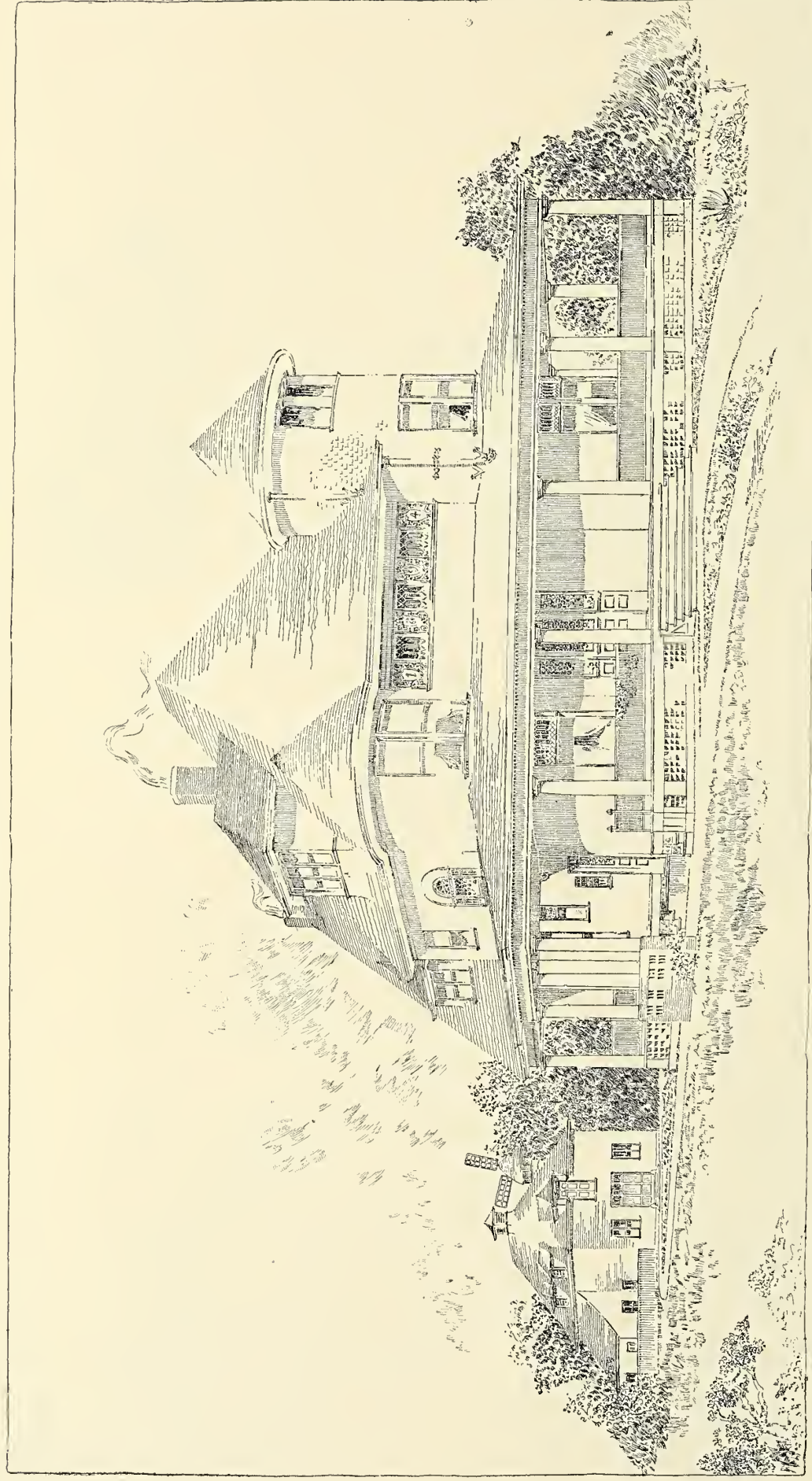
BALTIMORE COURTHOUSE COMPETITION.
DESIGN SUBMITTED BY BRUCE PRICE, ARCHITECT, NEW YORK.



PLACED FIRST.

DENVER ARCHITECTURAL SKETCH CLUB COMPETITION FOR A SIX-ROOM SCHOOLHOUSE.

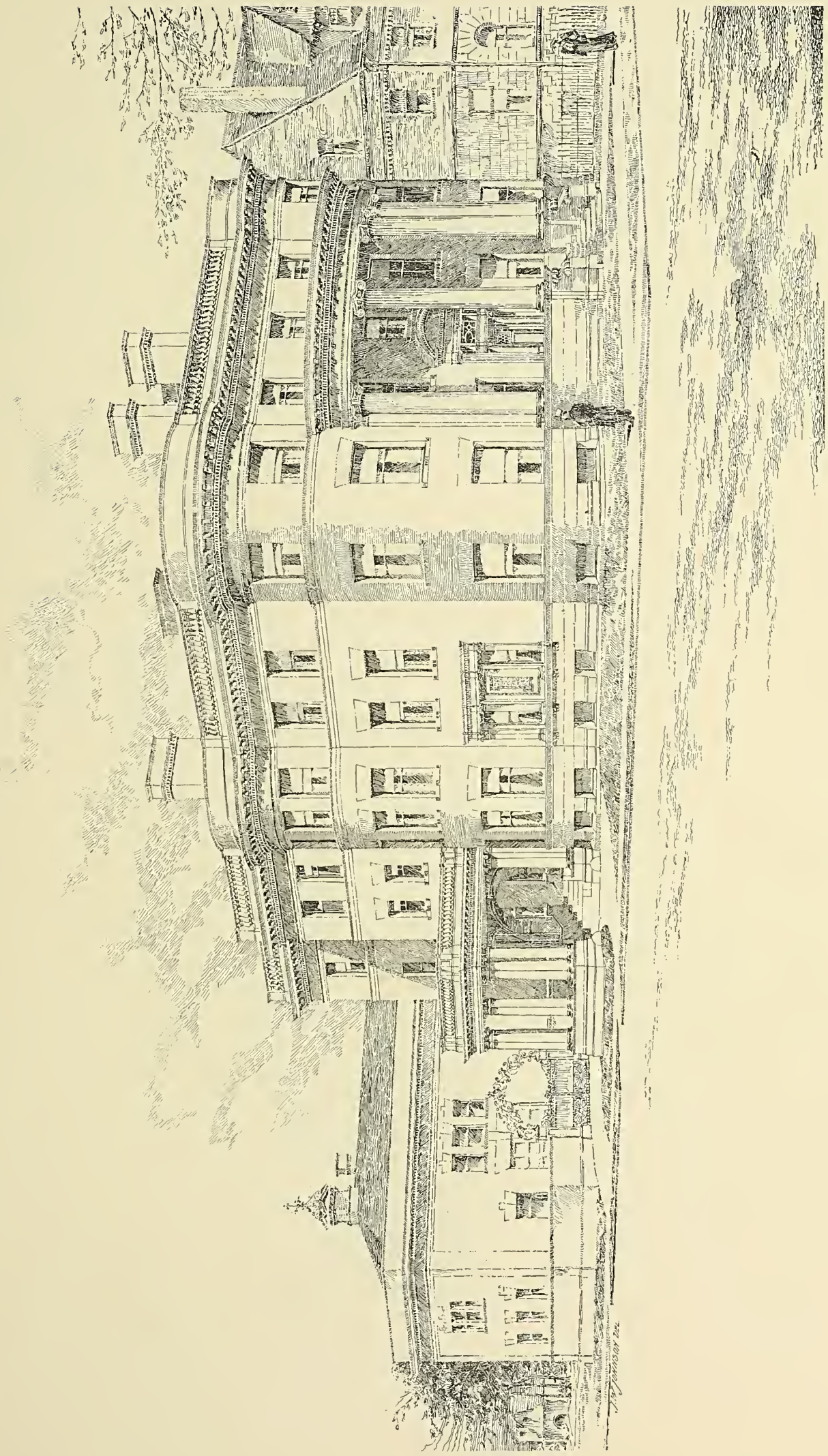
SUBMITTED BY E. R. RICE.

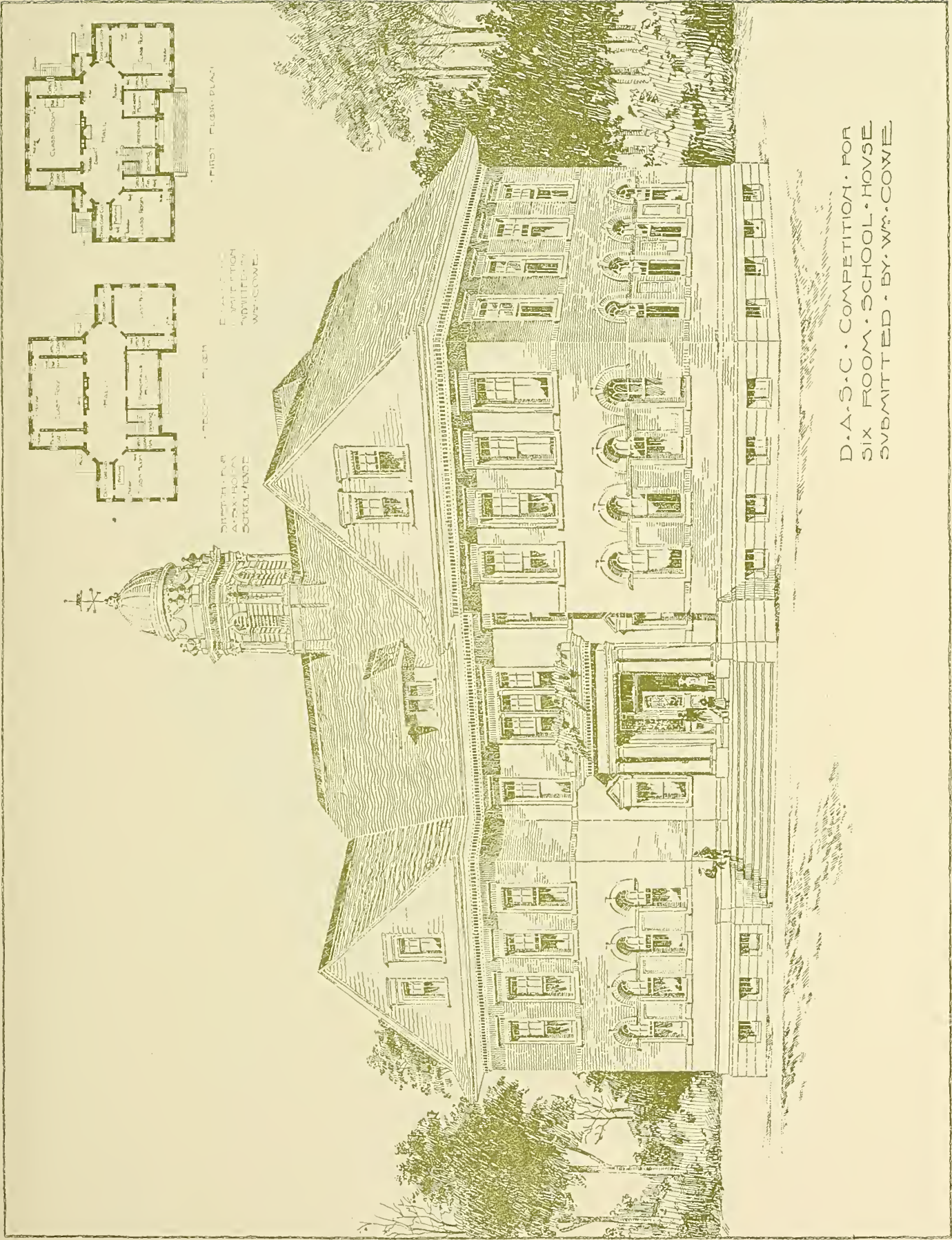


RESIDENCE FOR MRS. KNIGHT HINSDALE, ILL.

FLANDERS & ZIMMERMAN ARCHTS

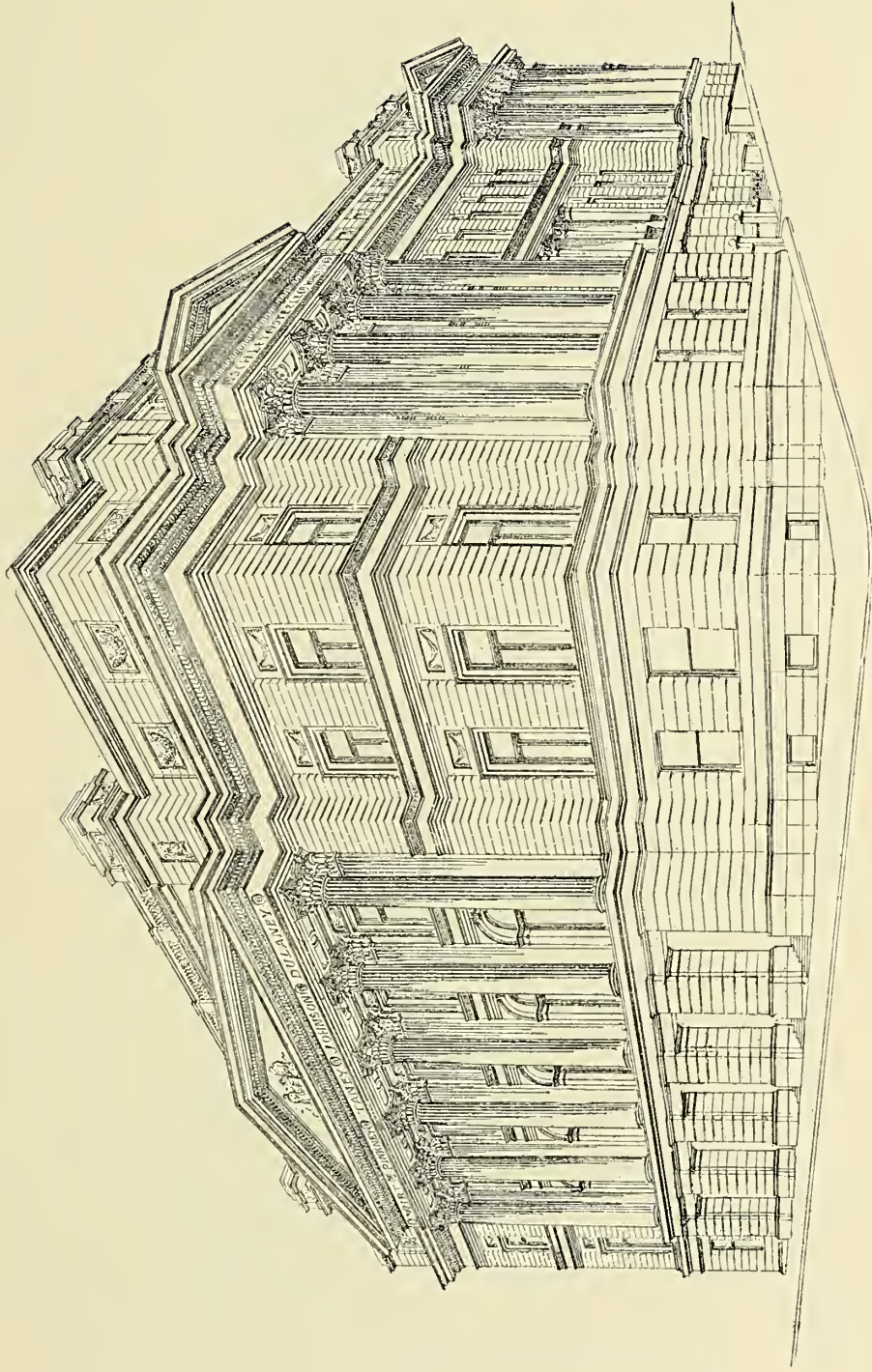
RESIDENCE FOR MR J H WALKER
DETROIT MICHIGAN
JENNEY & MIDDIE ARCHITECTS
CHICAGO ILLINOIS





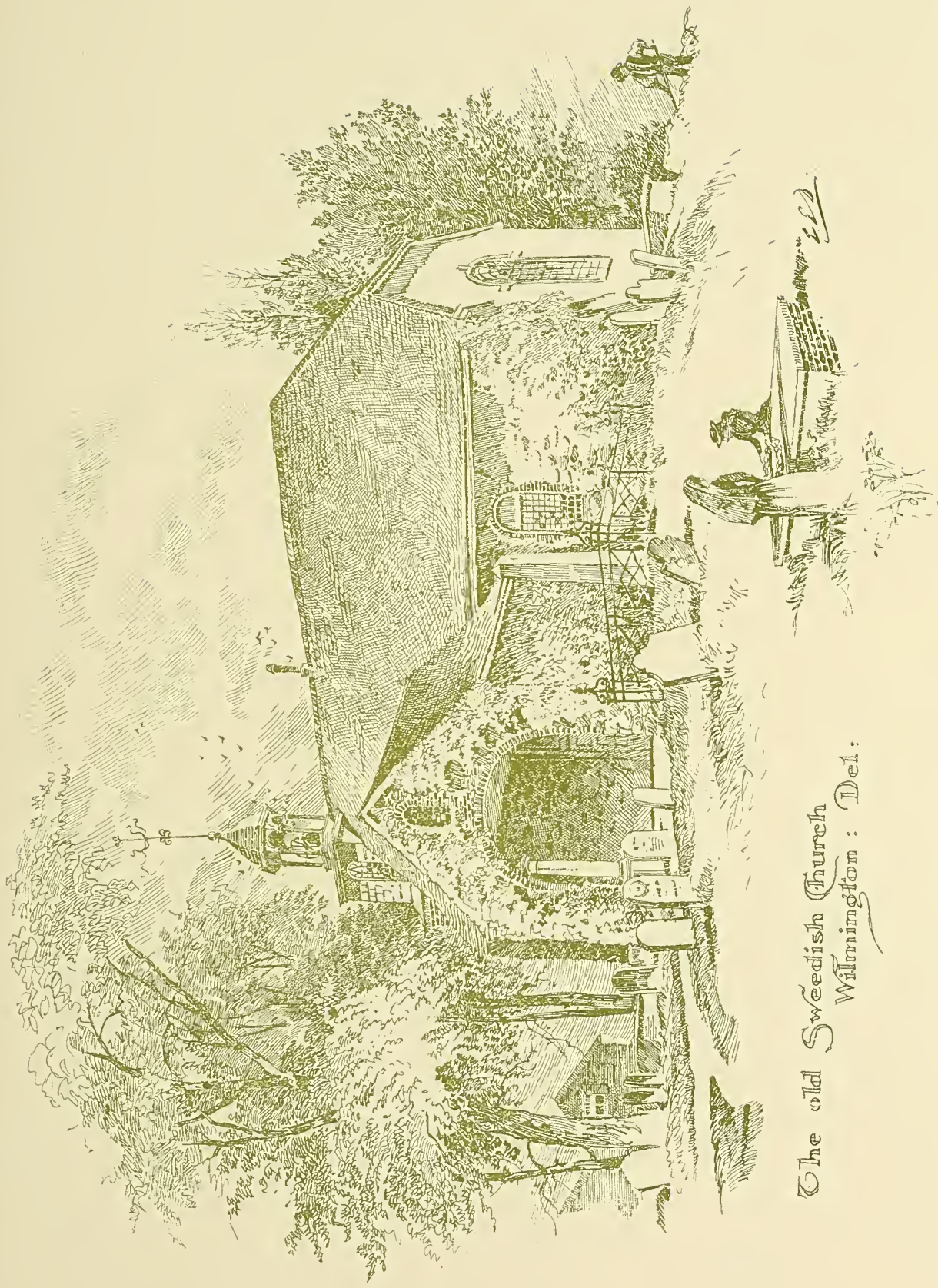
D.A.S.C. COMPETITION FOR
SIX ROOM SCHOOL HOUSE
SUBMITTED BY W.W.COWE

PLACED SECOND.

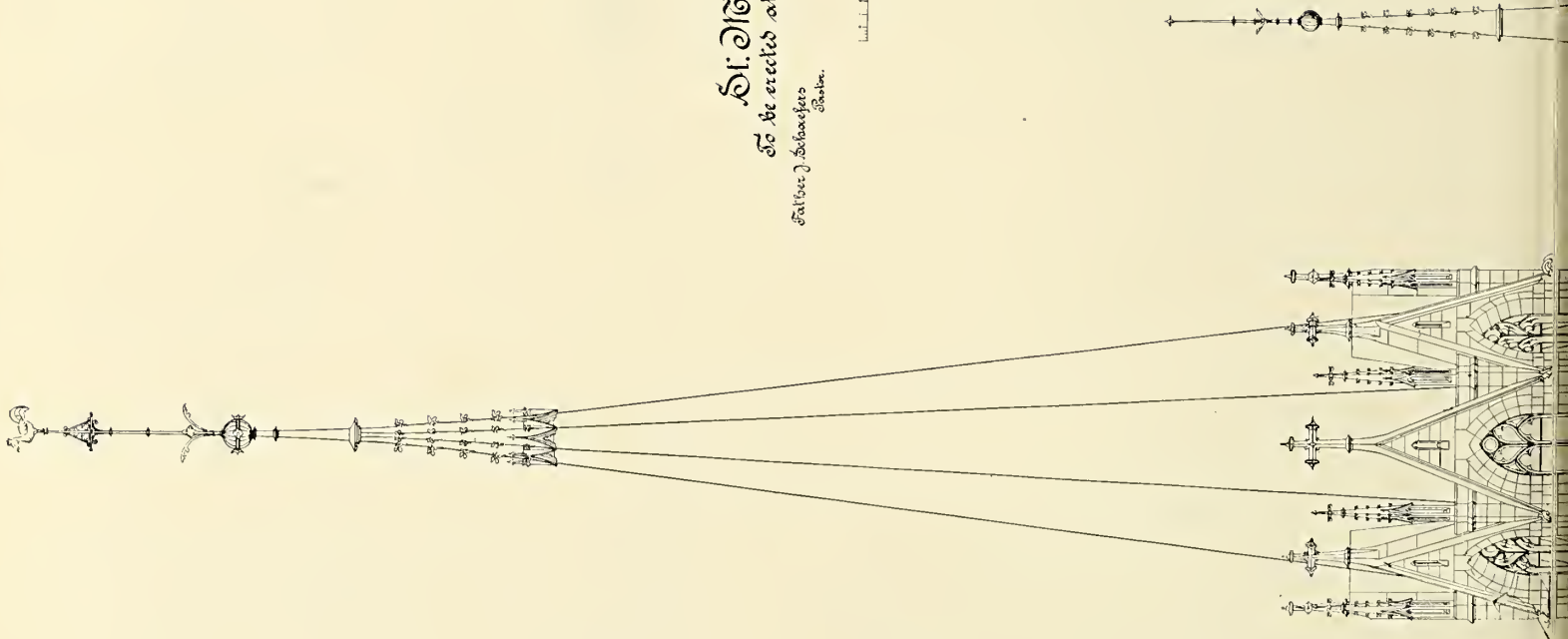


BALTIMORE COURTHOUSE COMPETITION.

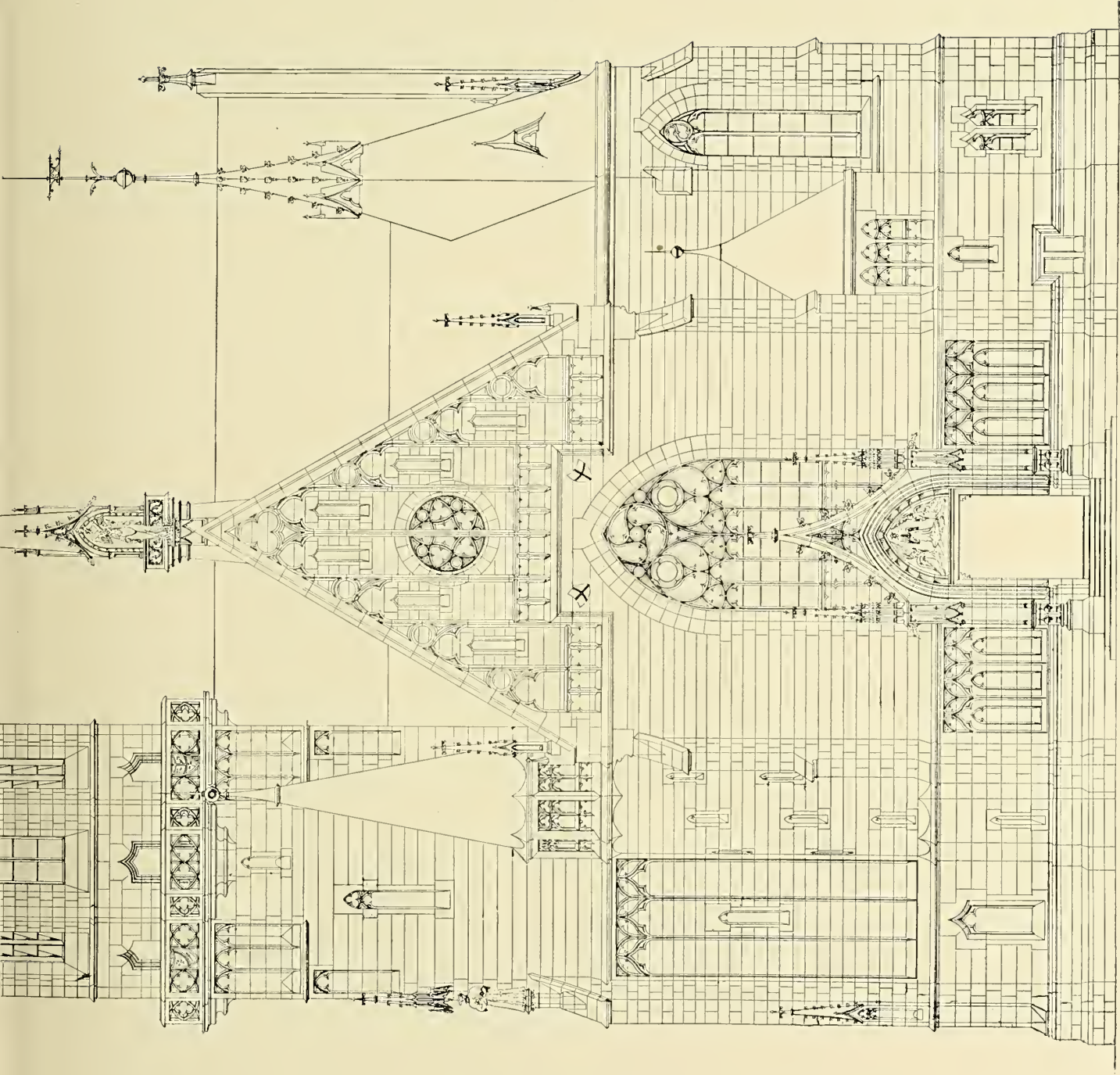
DESIGN SUBMITTED BY BRUCE PRICE, ARCHITECT, NEW YORK.



The Old Swedish Church
Wilmington: Del.

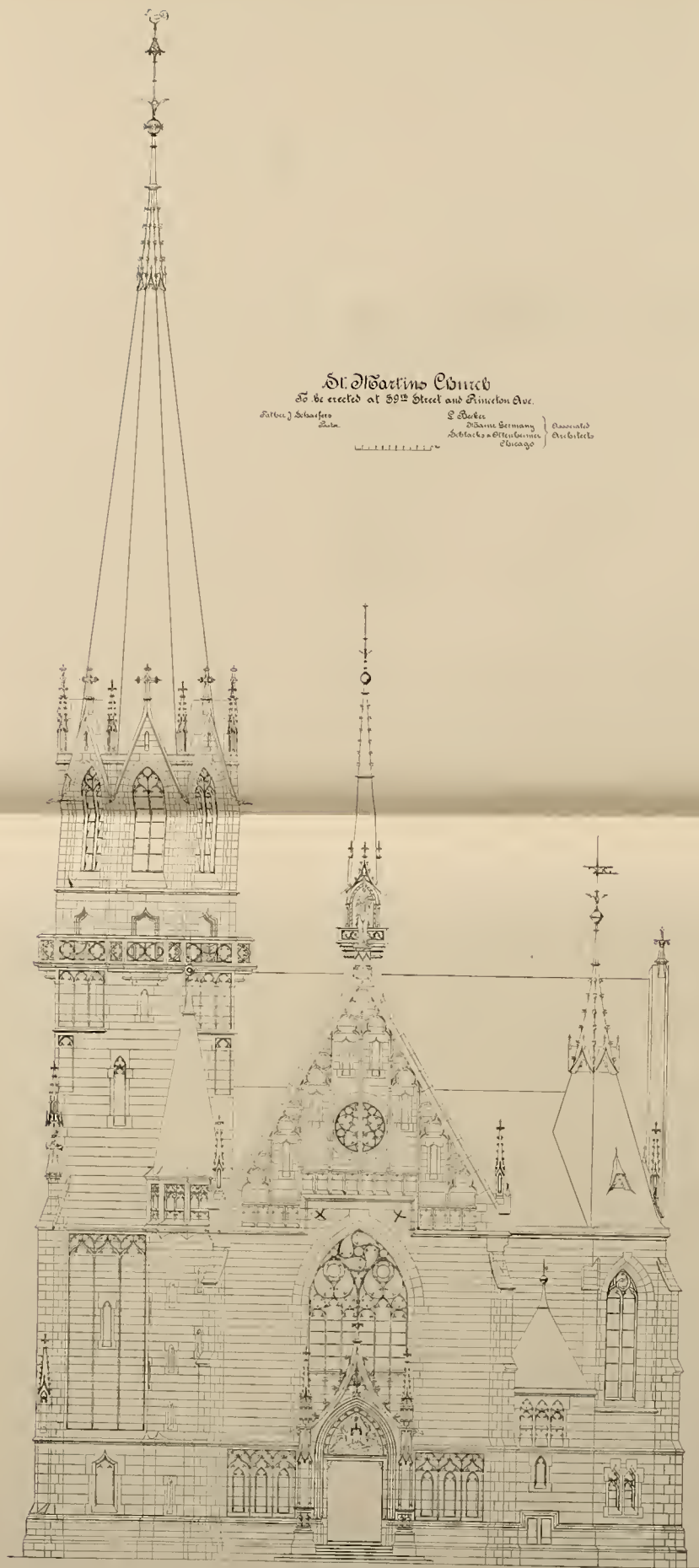


St. Martin's Church
as he erected at 59th Street and Lincoln Ave.
Designed by
Messrs. Hermann
Schmidt & Partners
Chicago.



East Elevation.

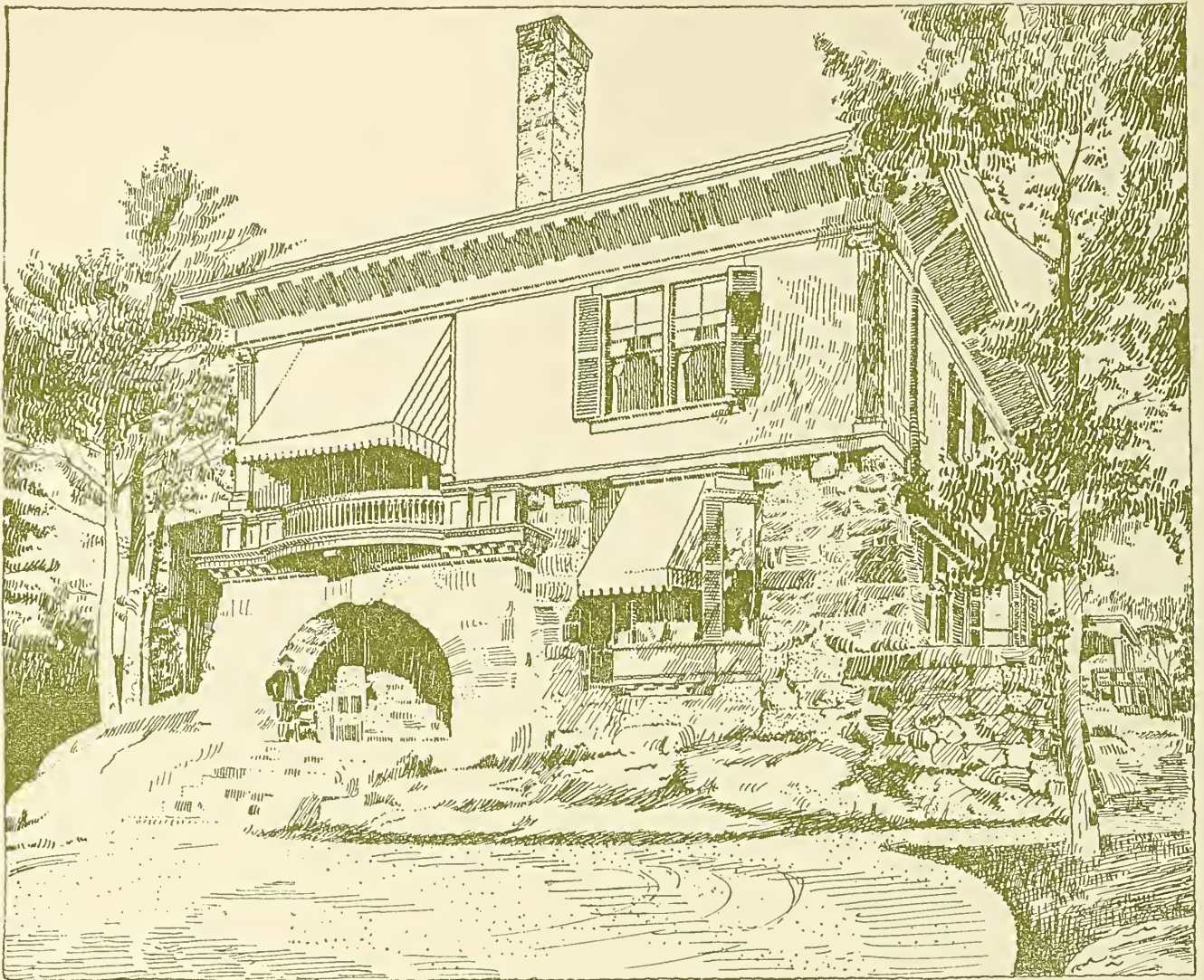
FOR PLAN, SECTION AND SIDE ELEVATION SEE AUGUST, 1894, NUMBER.



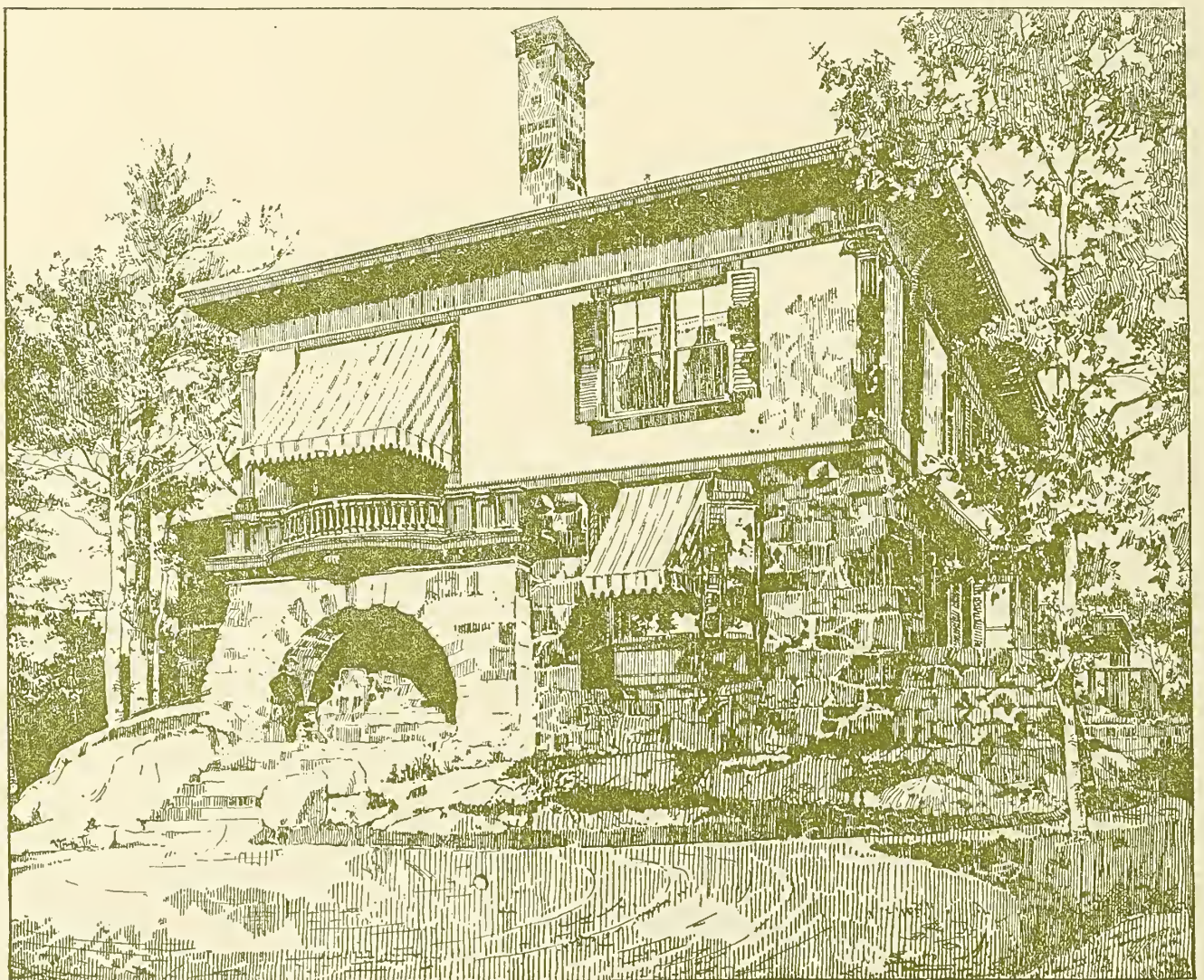
St. Martins Church
To be erected at 39th Street and Lincoln Ave.
John J. Schaeffer *John* *E. Barker* *Edmund Germany* } Associated
Architects *Chicago* *Architects*

East Elevation

FOR PLAN, SECTION AND SIDE ELEVATION SEE AUGUST, 1894, NUMBER.



PLACED SECOND. W. COWE, DEL.



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DENVER ARCHITECTURAL SKETCH CLUB COMPETITION. RENDERING FROM PHOTOGRAPH.

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BALTIMORE COURTHOUSE COMPETITION.

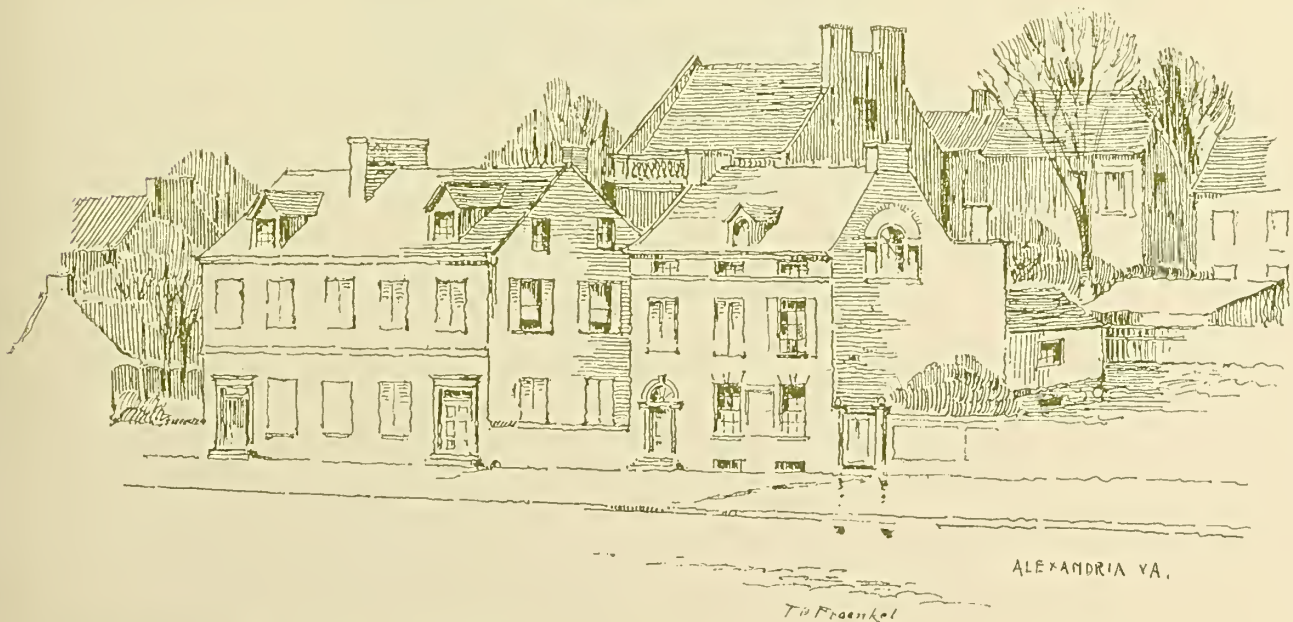
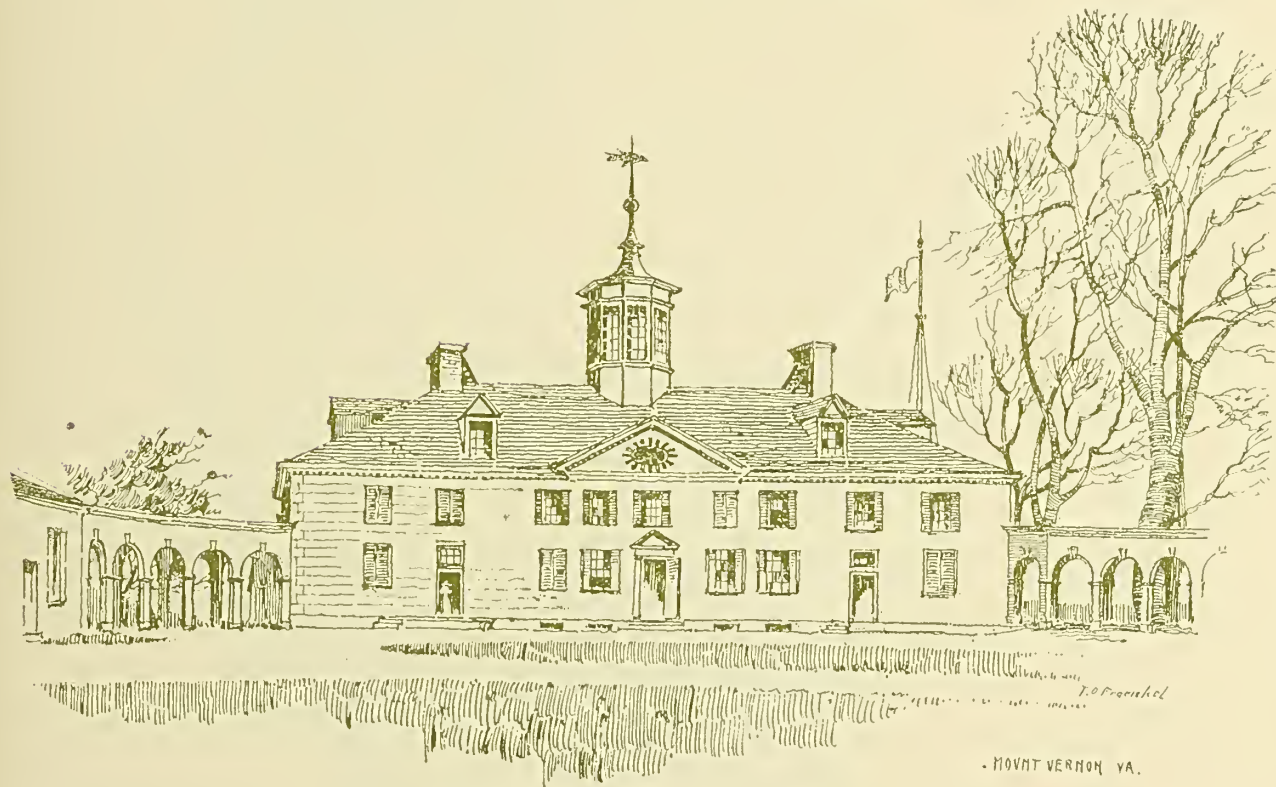
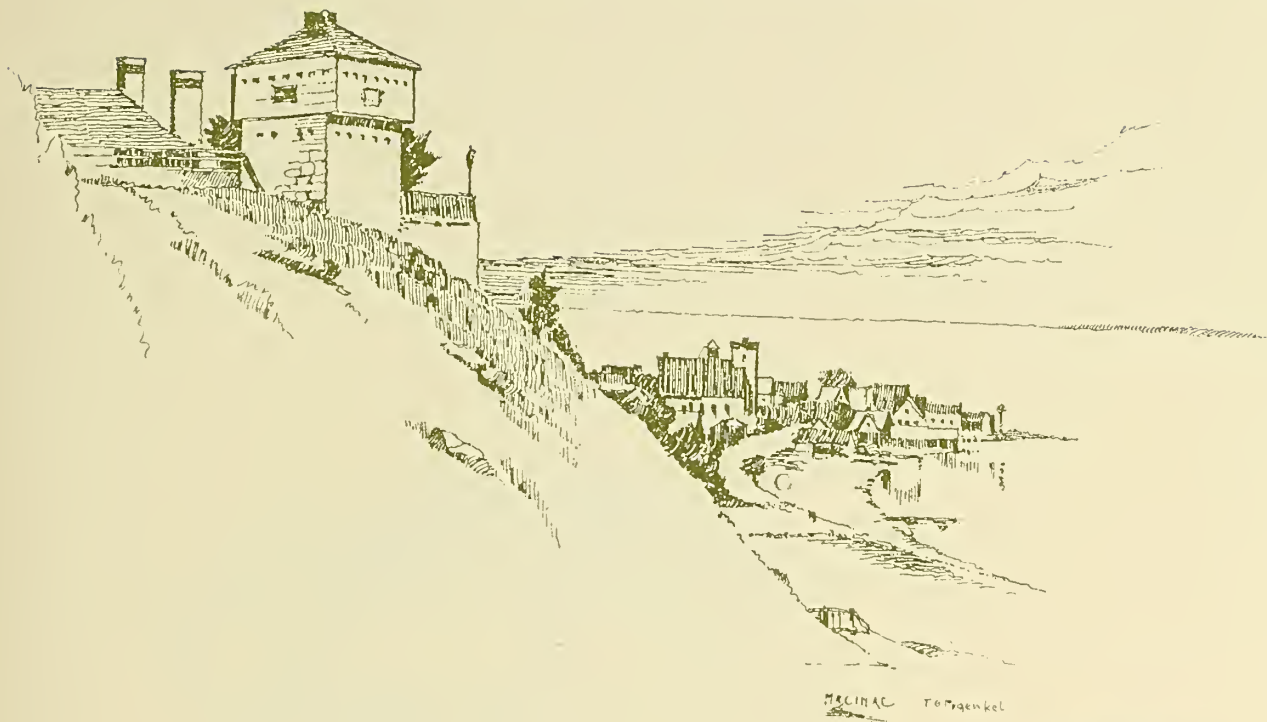
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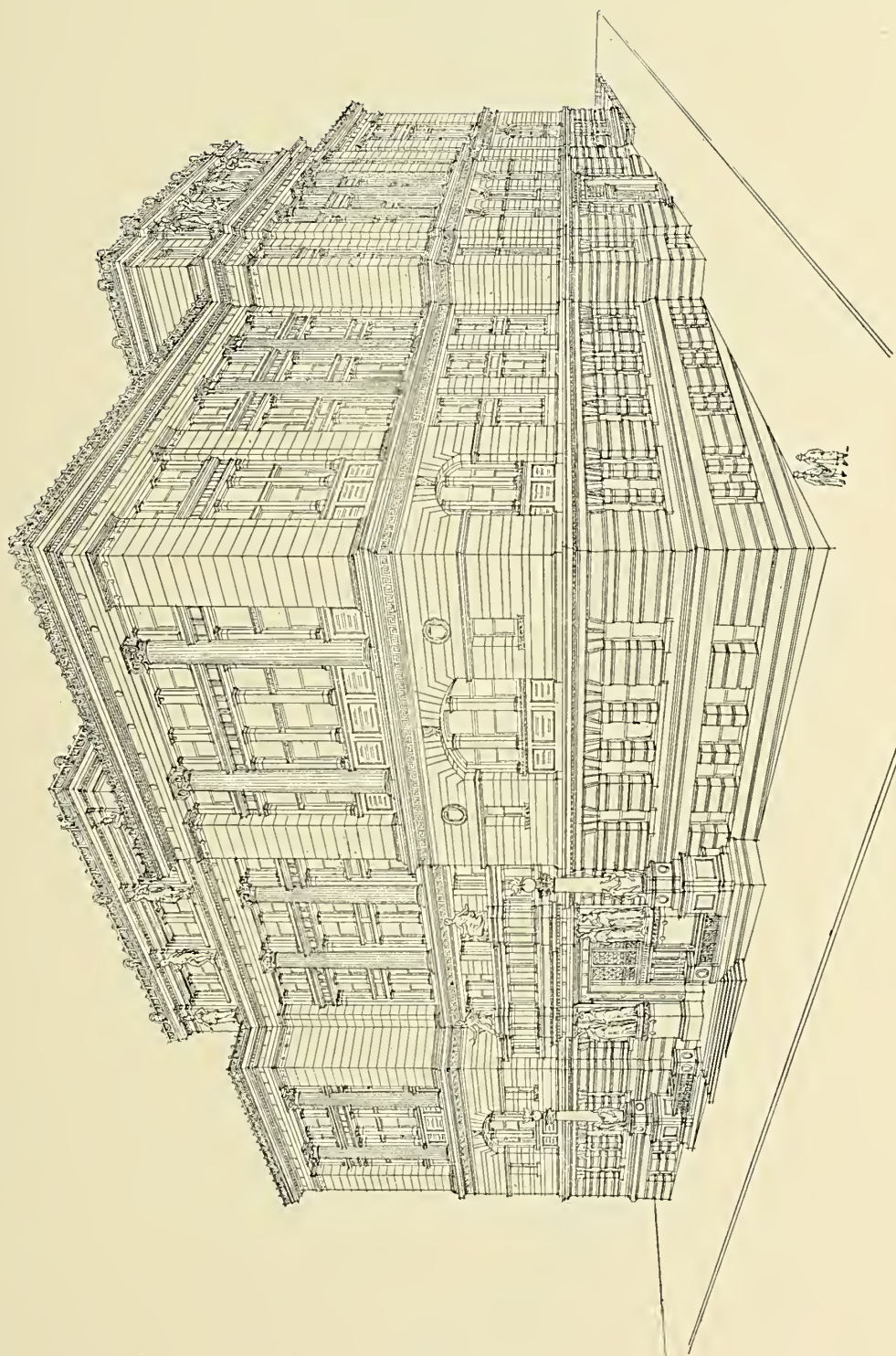
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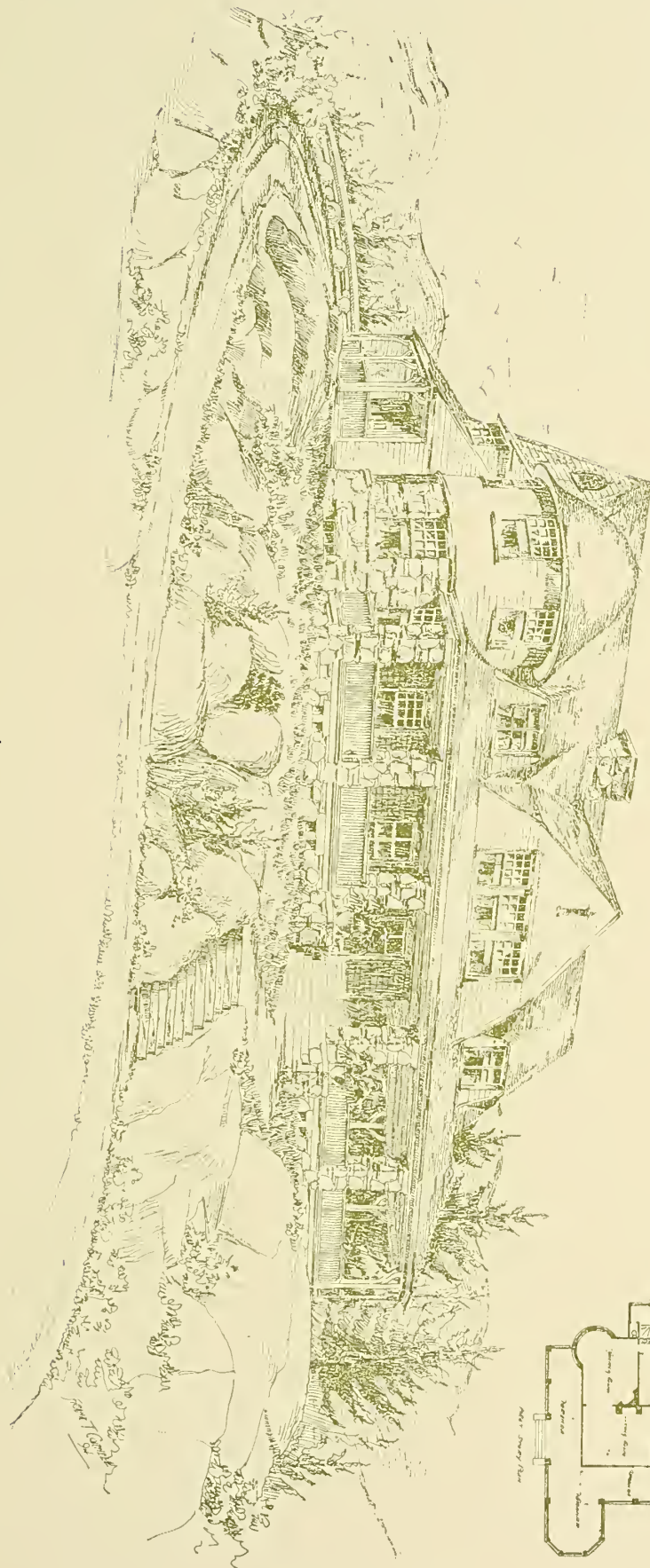


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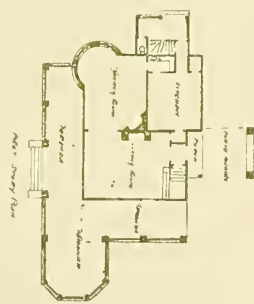




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Too Hasty Action by County Board.

The latest action upon the part of the Cook county, Illinois, commissioners in regard to the movement inaugurated for the building of a new courthouse noted last month is the decision to allow the people to vote upon the expenditure of the money. This will probably be voted by the people in November, and should be if the public knew how the money was to be expended. But they do not, and, in fact, the haste with which the entire scheme has been projected has allowed but little investigation. As a matter of public policy this haste cannot be too severely condemned. Chicago is, as the committee upon public buildings of the Illinois Chapter of Architects has said, entering a new period in its development. This is one in which art will stand side by side with commercial progress, and all public interests that take into consideration the construction of new buildings should call a halt until a general scheme can be devised in which the ultimate monumental and artistic features that should pertain to all public works can be carefully considered. In the days of rapid growth and perhaps imperfect architectural and engineering knowledge it may have been excusable to build a stone mausoleum for public office purposes, but today there is no excuse for any building that does not meet with the highest artistic approval and contain the greatest convenience in plan. There is no cause for haste such as is exhibited, and no reason why a steel office building should be built when the present building will last for fifty years as well as it has for the past fifteen. If greater room is needed, the city can be compelled to move, as it has no legal right or title to the ground now occupied nor the county to allow it the privilege; but even this condition does not argue in favor of hasty and ill-advised construction. The plan suggested by the Illinois Chapter committee, which suggests a joint committee of all those societies which have both knowledge and sympathy with artistic construction, is probably the best that can be devised for the proper conservation of the public interests involved. Such a committee will not be hasty in judgment or biased in opinion. It will be practical in regard to availability and judicious in the protection of all interests; but it will advocate some plan which, when the money is expended and the buildings are occupied, the public will approve of while transacting their business within their walls or showing the visitor how art has made its impress upon Chicago as evidenced by her public buildings. While the contraction of the city business due to the location of the river makes the accession of new ground impossible there are acres of space upon the lake front that can be utilized. This with the natural growth must some day be overrun with buildings of some sort. Would it not be better to there begin an improvement which will contemplate the erection of buildings for all classes of public service than to see viaducts, warehouses and docks shut in what in a few years will be the greatest city on the globe, if greatness be counted by heads and commercial importance? If this be even in part realized, how much greater will Chicago stand if her public buildings show that art has had a chance to grow and indicate a superior civilization as well as a superior commercial intellect. Chicago needs no

instruction in the influence good architecture has in commercial enterprise since the White City has so recently given her a fame that can only be lost through future neglect of these measures which more than any others made the Columbian Exposition a success — the employment of the highest architectural talent of modern times in the designing and grouping of her buildings. It was this grouping that made the buildings effective, and in the proper grouping of municipal buildings will be found as large a degree of success as in their designing. It is hoped that the people will see the folly of hasty action in the erection of any public building and insist upon a proper consideration being given to the lasting quality of the design and its location rather than its commercial aspect.

**Important
Factor in
State
Organization.**

In the discussion of the value of the state organizations, the benefits derived by the members through mutual association and acquaintance should not be lost sight of. The instances are too numerous to relate where the acquaintance between architects in different sections or state and country have been beneficial. An architect some years ago had his first commission in a peculiar class of construction. Wishing for expert advice he took his plans to one in a distant city, who was preëminently an expert. Their acquaintance was merely that of association members, but after spending two days in reviewing the plans the expert rejected the proffered \$300 fee by saying, "I may want some information from you sometime." An architect had made sketches and all but secured a commission to design a church, but just before the final agreement an architect was called from a distant part of the state, and being assured that no one had been consulted regarding the work, unconsciously competed and secured the work. A mere state association acquaintance caused these architects to remain friends, and he who seemed to be aggrieved soon after placed an important commission, which he could not undertake himself, in the other's way. This is one of the benefits of other than local associations.

**Architects'
Responsibility
Regarding
McKaig Bill.**

While there is little that can now be said regarding the passage of the bill for the reorganization of the office of Supervising Architect, as it will probably pass without opposition in the next meeting of Congress, it seems important that architects and the friends of a better class of public buildings generally should see their congressmen and senators, and as far as possible secure their coöperation in pushing the bill early in the session. This is particularly necessary in the southern and southwestern sections of the country where the larger number of public buildings of the near future will be built, and where, because there are a smaller number of architects, the greater degree of importance will be attached to the work of each individual. Besides taking action in the several state and local Chapters, each congressman and senator from South Carolina to Texas should be seen, and the advantages of the bill and the importance of its prompt passage explained. There will be an enormous amount of business before Congress at its next session and the time will be short, so that much depends upon the personal interest the members take in the passage of the McKaig bill. It will be remembered that the bill has the strong indorsement of the treasury department and the

committees on buildings and grounds, and was laid over as unfinished business at the last session. With so encouraging an outlook no architect should refuse to give the necessary time to make its successful passage secure.

**Bearing of
McKaig Bill
Upon the
Profession.**

Architects generally do not seem to have realized the important effect the passage of the McKaig bill now before Congress will have upon professional practice in its moral influence. Once adopted by the government and operating so that its benefits are seen by the public, it should be an easy matter to convince state legislatures of the necessity of a legal status for the profession. In the face of such a prestige, the governor of the state of New York would hardly have dared veto the bill passed in that state two years ago. The Texas legislators would not have objected so strenuously and the solons of Illinois would not have inquired as they did regarding the sanitary bill asked for by architects, "What is there in it for us"? The establishment of a national architectural commission will immediately bring forward the question of professional status, and the general public will again be protected in their private as well as their public buildings. While the result in the case of the New York bill seemed to discourage the architects in other states, the work should be resumed with vigor and nothing left undone to establish the profession upon a professional basis.

**Proposed
Changes in
Institute
By-Laws.**

Perhaps the most important discussion which will occur at the coming convention of the American Institute of Architects will be that upon amendments to the By-Laws affecting the status of state and local Chapters. The scheme proposed by the committee of the Institute is one of local Chapters alone, and the state organization, if not ignored, is placed in such a position that immediate concerted action by the profession of a state for a state purpose is practically impossible. While to discuss the matter in detail before it has come before the Institute would seem premature, we cannot refrain from warning the profession that the farther any plan for the promotion of strength and influence in the Institute recedes from a plan of state Chapters the more detrimental to the interests of the profession will it be. It has been found that one enemy of state organization has been the excessive dues to which members of both local and state associations are liable; but in states where there are a number of local Chapters and a large percentage of the profession are members a per capita tax or even a payment of expenses by the Institute would be better than to leave the state with no organization to take charge of all questions of general interest. Again, in at least one-third of the cities in the Union it will be many years before ten practicing architects can be found who would consent to form a Chapter and then successfully apply for membership in the Institute, so that for these states some plan must be adopted by which the two or three in each town may combine in a state Chapter, and then as they grow in number the local Chapters can follow. It must be remembered that the local conditions are different in almost every state, and the rules should not be made too arbitrary, but must be general to be effective. It seems to us that no state need be without its organization, while, upon the present proposed plan, many localities will remain without organization because of the difficulties in forming local Chapters.

MECHANICAL HEATING AND VENTILATION.

BY M. C. HUYETT.
FOURTH PAPER.
FANS.

TO the inexperienced a fan *is a fan*, and the result is that the man who uses good logic in presenting claimed merit (regardless of facts) makes impressions which, regardless of merit, gains the end desired—a sale, which too frequently means that the buyer is sold.

Two types of fans are used; one is known as “disk or ventilator wheels.” They deliver the air from the *sides of the vanes* (or blades), are high speed and non-positive in action; will not deliver 33 1/3 per cent the volume of air claimed. A recent anemometer test applied to a 34-inch ventilator wheel fan running at 711 R. P. M. proved less than 7,000 cubic feet of air per minute was delivered; the fan is listed by the manufacturers at “20,000 to 25,000 cubic feet.” Resistance caused the air to BACK OUT between the ends of the vanes (or blades) and the inclosing shell; speed of wheel does not overcome that defect.

Disk fans are used for heating and ventilating a portion of the Capitol building, Washington, D. C. In a report made by a government heating and ventilating engineer, in May, 1894, I find the following, namely: “The fan should force air into the radiating chambers, but part is thrown back, as indicated by arrows (not shown). . . . the type of fan is not suited for the class of work it has to perform. . . . Whenever I entered the main cold-air supply tunnel, near the entrance of which this fan is located, I found in most instances a large bulk of heated air thrown back through the fan into the main air tunnel, which shows conclusively the insufficient power of the fan.” (Henry Adams, Heating and Ventilating Engineer, Report No. 853, LIII Congress, second session.)

The other type is known as steel plate exhaust fans, or blowers; the wheels deliver air *from the periphery* and are positive; at 2,584 ft. lineal travel of wheel, periphery will give 1/4 oz. pressure, 3,657 “ “ “ “ “ “ “ 1/2 “ “ 4,482 “ “ “ “ “ “ “ 3/4 “ “ 5,175 “ “ “ “ “ “ “ 1 “ “ as compared with less than 1/4 ounce pressure for the ventilator wheel at 6,278 feet lineal travel of periphery.

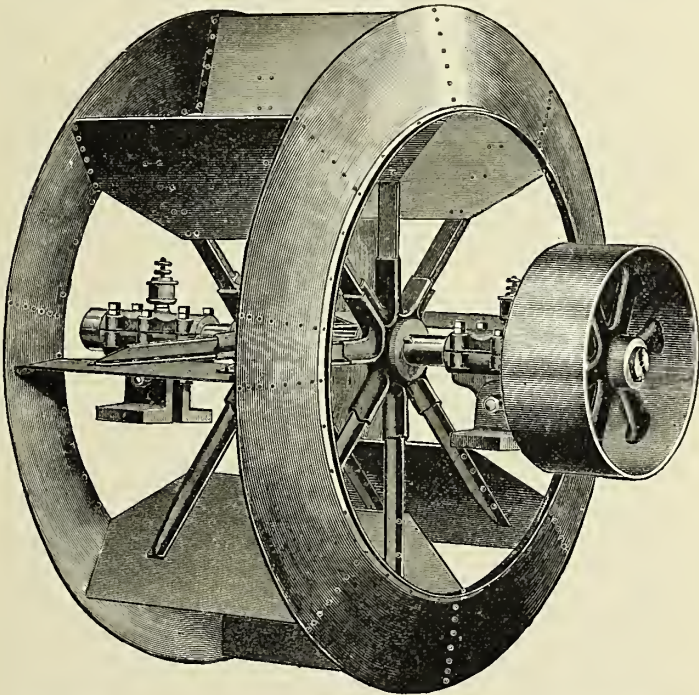


FIG. 3.
Peripheral Discharge Fan Wheel as used in steel plate exhaust fans and blowers.

In mechanical heating and ventilation, fan speed and power must be taken into consideration. In making comparisons the lineal travel of wheel periphery should be the basis.

If 25,000 cubic feet of air per minute shall be required, the bidder who hopes to secure the contract will specify a fan which sells for, say, \$700; and will require 7 horse-power theoretical; the bidder who desires to provide the best and most economical

plant possible will specify a fan which sells for, say, \$1,000, and which will require 2.4 horse-power theoretical; the latter proponent will be \$300: high in price, but two winters' use will *save, in cost for power*, an equal sum of money.

Owing to lack of knowledge, the \$300 difference in price, in nine instances out of ten, settles the matter of award, and the buyer practically throws away \$150 every six months the plant shall be operated. The statements of sellers regarding power are not made from a like standpoint, therefore are wholly unreliable for the purpose of comparison; neither buyer nor architect is competent to analyze and measure the unknown quantities.

It matters not whose standard shall be used, but it is important that a *standard shall be used*—it will be alike *just to each competitor*.

Since preparing the preceding matter I have examined a fine public building in Chicago, Illinois; it cost \$1,000,000; for heating, in part, and ventilation, the air supply is provided by two steel plate, full-housing fans with wheels 66 inches diameter by 36 inches—30 inches wide at the periphery—rated by the maker at 49,524 cubic feet capacity each at 300 R. P. M.; the actual capacity is less than 24,000; they are operated at about 285 R. P. M., are *insufficient in capacity*, so noisy and expensive for power that they are used only about two hours daily; the air travel is about 75 feet per minute—so high that equalization is impossible.

It is a “misfit,” but the seller has been paid.

Properly proportioned, that volume of air can be supplied at 50 feet velocity in main, save seventy-five per cent in power applied—\$800 a year—and no noise nuisance.

The criticism is not made as an attack on the system; the purpose is to correct evils in methods, weed out inexperienced engineers, and teach architects essentials.

The basis for a required volume of ventilation—in a mechanical system—is the *capacity of the fan-wheel to deliver air*. “Capacities” in printed tables are so grossly incorrect that, in defense of truth, I shall “hew to the line, let the chips fall where they may.”

“A” listed a fan as follows:

Height of Case.	Wheel Size.	Circumference in Feet.	Blast Area.	Pressure.	Capacity per Minute.	Speed.	H.-P.
140"	84" by 48"	21.99	1176	1/4 oz.	21.102	117	2.15
				1/2 "	29.870	166	6.10
				3/4 "	36.601	204	9.98
				1 "	42.253	230	17.28

(Peripheral width of wheel is 42".)

In catalogues the capacities were raised to 31,950, 44,320, 55,700 and 62,780 cubic feet. Others who claimed “the only original tables and data,” rating fans far above actuals, *FORCED competitors to follow*.

Buyers, comparing capacities and prices, at like prices naturally purchase that rated highest.

“B” lists:

84 by 42 in. wheel, 137 R. P. M., 1/4 oz. pres., 35.400 cu. ft. capacity.
“ “ “ 189 “ 1/2 “ 50.100 “ “

At the pressures stated, capacities are 18.087 and 25.603 cubic feet respectively. The revolutions for the stated pressures should be 117 and 166, and true capacities will then be 15.072 and 21.136 cubic feet, respectively.

“C” lists a wheel 84 by 48 inches, as follows:

Speed.	Pressure.	Capacity in cu. ft.	H.-P.
118 R. P. M.	1/4 oz.	42.167	2.1
166 “ “	1/2 “	59.681	5.8
208 “ “	3/4 “	73.130	9.5
235 “ “	1 “	84.436	16.5

The true capacities are 21.102, 29.870, 36.601 and 42.253 cubic feet per minute, respectively, provable by “C’s” own tables.

“D” lists a wheel 84 inches diameter by 42 inches—35 inches wide at the periphery:

R. P. M	Pressure.	Capacity in cu. ft. per minute.
118	1/4 oz.	39.638
168	1/2 “	56.198
209	3/4 “	68.753
236	1 “	79.384

That list, corrected, reads:

R. P. M.	Pressure.	Capacity in cu. ft. per minute.
118	1/4 oz.	15.072
167	1/2 “	21.136
204	3/4 “	26.144
236	1 “	30.181

The difference in the two tables of capacities is—wind of the maker of the high capacity table.

Pressure is due to velocity; it will be noticed that the speeds and pressures of "A," "C" and "D" ARE ALIKE. The wheel of "A" is TWENTY PER CENT wider than that of "D" at the periphery—in fact, has *twenty per cent greater capacity*, yet "D" CLAIMS *twenty-four per cent larger capacity than "A" CLAIMS*.

The relative difference of the four wheels bases on differences in *widths at the periphery*, all else is *wind*—of the claimants. True, there is a slight difference in the quantity of iron and quality of workmanship.

The height of a fan case, or the size of its discharge, is *not* a basis for capacity; if they are, then one size of wheel would answer for all cases and they might be made ALL MOUTH.

The truth is that *like sized wheels at like speeds will deliver like quantities of air*.

Architects should require, in specifications, height of fan case—approximate—diameter of fan wheel, width of fan wheel at its periphery, number of revolutions per minute to be operated at, and cubic feet air delivery at the designated speed, and reject specifications as being incomplete which do not contain those essentials—they are just as essential as is the full specifications for boilers and their settings.

In mechanical heating and ventilation, heat—force—is not applied by means of direct radiation or by vertical risers connecting from indirects, hence the fan is a most essential element and requires more than casual notice. Fan, heater and motor have been located in basements to heat nine floors above; on third floor and on a sixth floor, to take air supply from above the roof line and warm all the space below, and in a separated boiler room located seventy feet from a three-story building 340 by 45 feet; it matters not what the location, the warmed-air delivery and volume of ventilation depends on the fan.

Contracts for heating and ventilating apparatus are too frequently let to the "lowest bidder," regardless of the factors of safety, efficiency, sufficiency, durability and economy; in subuniting proposals each bidder makes his own plans and specifications, not two are alike, and no one—other than an expert—can analyze and determine which is the cheapest and safest.

It is a simple matter to reduce the factors of safety, durability and economy, and *thereby reduce the cost*.

Recently there was sharp competition for the apparatus for a large church building; one proposal stated specifically the sizes, quantities, etc., and forced others to be like specific. "He dies hard," was the remark of the person who represented the firm that secured the contract. Knowing the business methods of the successful representative's firm, "the corpse" fastened a petard where its subsequent explosion damaged a tattooed reputation, caused loss, and SAVED THE BUYER FROM BEING VICTIMIZED; the heater was measured and found short 1,000 feet of pipe, the fan was "sized up" and found under the specifications; the shortage on pipe was made good—under compulsion—and the fan was shipped back to the factory and one of the proper size was forwarded; the amount attempted to be "saved" WAS ENOUGH TO GET UNDER THE HONEST BIDDER'S PRICE. It was a DELIBERATE ATTEMPT TO BEAT THE PURCHASER, the ignorance of buyers was relied upon for success, but the petard exploded—"they did not know it was loaded."

Buyers of wheat, coal, iron, and products bought and sold by weight, WEIGH the material delivered, and other products are measured by the usual commercial standards, but buyers of heating apparatus take that sent them, and not one in one hundred KNOWS if or not quantities are received as specified. "What fools these mortals be." The hint should be sufficient.

"Feet capacity heaters" and "heater to contain — feet of 1-inch steel pipe" are *not* synonymous terms descriptive of like quantities, the former is a "trick of the trade" favorable to the seller to the extent of five to ten per cent.

Any seller who fails to specify the actual quantity of 1-inch steam pipe, diameter of fan wheel and its width at the periphery, R. P. M. and speed of engine, *does so with the intent to get a contract that shall be DEFINITELY INDEFINITE*—except they hedge behind "we are responsible" and "we guarantee." Responsibility and guarantee *never yet warmed and ventilated a building*, that requires a *definite quantity of steam pipe and volume of air contact therewith*.

Another "trick of the trade" is to get specifications shaped for "the Jones [or some other] system," the intent of that is

to lessen the force of competition. Mechanical heating and ventilation is the SAME SYSTEM, practically, *regardless of who manufactures the apparatus*, but there is a difference in the engineering experience which forms the detail plan and combinations; no one firm owns or has a mortgage on all the engineering ability in the United States.

Another "trick of the trade" is claimed for "capacities"; the claims will be found analyzed elsewhere—see Tables A, B, C, D. The corrected tables are the claimants' basis with the *wind squeezed out*.

RULES FOR CALCULATING PRESSURES, SPEEDS, CAPACITY AND POWERS FOR BLOWERS AND EXHAUSTERS.

A.—Column No. 2, divided by circumference of wheel in feet, equals R. P. M. necessary to sustain the pressure opposite in column No. 1.

B.—Diameter of wheel, in inches, multiplied by its width at the periphery, in inches, and divided by 3, equals square inches blast area.

C.—Column No. 3, multiplied by area of blast in square inches, gives capacity in cubic feet of air per minute.

D.—Column No. 4, multiplied by $1\frac{1}{2}$ and multiplied by the area of blast in square inches, gives theoretical H.-P.

Fans are such an important factor in heating and ventilation that all honest interested parties should be willing to adopt a fixed standard for capacity (architects can force it).

The "key"—Rules A to D, inclusive—and the "lock" were made by one of the most capable engineers in the United States. I would be willing to accept that basis but for the fact that between the speeds for different pressures there is too much of the unknown quantity—except for experts. Any reader who desires the "lock" should write to M. C. Huyett, heating and ventilating engineer, 1541 Monadnock building, Chicago, Illinois.

The lock and key are essential for *speeds and pressures*, but for capacity "The Huyett Rule" is more readily used, at any speed.

This exhaustive analysis of fans is made for the purpose of squeezing the wind out of claims and instructing architects so they shall be able to measure each fan specified by a *like standard*, in order to be able to judge relative capacity on the basis of fact, protect clients and force competitions to a legitimate basis.

(To be continued.)

ANNUAL CONVENTION OHIO CHAPTER, A. I. A.



THE annual convention of the Ohio State Chapter of the American Institute of Architects met at the Beebe House, Put-in Bay, August 16 and 17, 1894. The convention was called to order at 3 P.M., President J. W. McLaughlin in the chair; George W. Kramer, secretary. On calling the convention to order, the President delivered the following address:

FELLOWS OF THE OHIO CHAPTER, A. I. A.—It has now been two years since our seventh annual convention was held in the city of Columbus. Last year it was deemed inexpedient to hold our usual meeting, owing to the fact that the annual convention of the American Institute of Architects took place in the summer season instead of in the fall, and the extraordinary attractions presented by the wonderful Columbian Exposition, it was thought, would, of course, have distracted attention from other matters.

Although the World's Fair has passed into history, I cannot refrain from a passing notice of this event and a hope that the great object-lesson presented at Chicago last year has not been lost to us. We, as architects, can take pride in the exposition our nation made to the world, showing what we could do in the way of superb architectural effects, and no one who visited the great White City by the shores of Lake Michigan can ever forget the impressions made upon him, whether it was while the sun was gilding the gorgeous domes and towers, or at night when electricity, that marvelous agent of man, was bathing the structures in molten silver, making the scene a veritable dreamland. This was undoubtedly the most important event that has taken place since our last meeting.

As our last convention was the seventh annual meeting, I do not know whether to call this the ninth or our first biennial assemblage; however, whatever we shall determine to call it, it is our privilege to be here, surrounded by the beautiful Lake Erie to discuss questions which, it is to be hoped, will be of benefit not only to ourselves, but the entire profession.

It is hardly necessary to remind you of what you all are perfectly aware; that we have passed through a year of great financial depression, and our own profession has been one of the first to feel its effects. Architects, unlike artists of the palette and brush, cannot calmly sit down and draw pretty pictures and sell them to whoever wishes to purchase; we have to wait for clients to order them to fit a certain lot or site; and in the present state of the country, capital is of a very retiring disposition and not easily moved or cajoled into doing anything for our especial benefit.

Now that Congress has at last stopped the seemingly interminable discussion of the tariff question, we can hope that they will take just a little time to pass a bill that is before them, that would be of lasting benefit to our profession—much more than anything that has been done before. But unless we make a determined effort upon our representatives and senators, I fear that the McKaig bill will be consigned to obscurity and the designs for our public buildings will still be made, as heretofore, in the governmental plan factory in Washington. It would be a great misfortune to the architectural profession if

this bill to allow competition among architects for the government buildings should fail to pass at the present session of congress. Although many of us may have our own ideas of the results of competition, yet we all must admit that anything would be better than the system of government architecture that has prevailed for the last thirty years or more, as nothing could possibly be worse than our present public buildings, which are a laughing-stock to all intelligent visitors from foreign countries.

In conclusion, upon retiring from the office of president, having served the allotted time, I desire to thank the Association for the honors conferred upon me, not the least of which was being selected by your committee to design the Ohio State building at the Columbian Exposition.

The minutes of the last convention were then read by the secretary, and the following letter from Mr. Alfred Stone, secretary of the American Institute of Architects, relative to certain contemplated amendments to the By-Laws of the American Institute of Architects, was read, the same being referred to the convention for an expression of opinion as relating to the status of State Chapters:

PROVIDENCE, August 11, 1894.

Mr. George W. Kramer, Secretary, Ohio Chapter, A. I. A.:

DEAR SIR,—Inclosed please find copy of Constitution and By-Laws with amendments marked upon the same so far as they can be; and in addition thereto it is proposed to retain the present Article X and call it Section 1, and insert new sections as follows:

"SEC. 2. A practicing architect whose professional office is at a greater distance than twenty-five miles from the headquarters of any Chapter may apply, in the manner heretofore prescribed, and become a member of the Institute without first becoming a member of any Chapter and being approved by the officers of the same; but he shall become a member of a Chapter whenever one shall become available within said limit.

"SEC. 3. Every Chapter and all Chapters uniformly shall provide for a membership for practicing architects, for which the initiation fee shall be \$10 and the annual dues \$5, but each Chapter shall have the right and power to limit the privileges for such membership, and to make other classes or extensions of membership with greater or lesser dues as it may deem best, this uniform rate being intended to apply only to the membership made compulsory for admission to the Institute.

"SEC. 4. Every practicing member of a Chapter of the Institute shall become a Fellow of the Institute, and no election of new practicing members shall take effect until the Institute shall also have elected the candidate to Fellowship.

"SEC. 5. The termination of any person's practicing membership in a Chapter shall also terminate his membership in the Institute, and, therefore, the action of the Chapter in regard to such termination shall not take effect until the Institute has concurred, and the termination of any person's membership in the Institute shall terminate his membership in any and every Chapter of the Institute.

"SEC. 6. The territorial limits of every Chapter shall be defined and decided as follows: A project shall be submitted by the Chapter to the Institute, and shall be approved or amended by the Institute, so as to prevent any overlapping of territories and so as to secure, as far as possible, a practical distribution of Chapters; such amended project shall become the limit and definition of the territory of such Chapter, and shall be recorded by the Institute Secretary upon its charter.

"SEC. 7. NEW CHAPTERS.—Any ten practicing architects eligible to membership in the Institute, may apply to the Institute for membership and for a charter to organize a new Chapter, stating its proposed limits, and the Institute may elect such new members and charter such new Chapter, provided that its headquarters shall not be within fifty miles of the headquarters of any existing Chapter, without the consent of such existing Chapter; and, provided further, that if the new Chapter proposes to take part of the territory of any existing Chapter, such existing Chapter shall be consulted by the Institute before such charter shall be granted.

"SEC. 8. DELEGATIONS.—A Chapter may send to any convention of the Institute one or more Fellows, properly accredited by vote of a meeting of said Chapter, as its delegates upon such questions as shall be defined in the credentials, and on motions upon such questions the delegation may vote (in addition to each delegate's personal vote) one vote for each absent Fellow of the Chapter who shall be recorded in the credentials as having at the accrediting Chapter meeting voted to so authorize the delegation; but no additional privileges of debate nor any vote in elections shall be exercised by a delegation, as such, it being understood that each delegate retains unimpaired all his personal privileges.

"SEC. 9. STATE ASSOCIATIONS.—When there are two or more Chapters in any state, they shall, for any purpose (other than local and pertaining to their territory and jurisdiction), involving an appeal to, or business with, the legislature, judiciary or executive of said state, unite for said purpose, as occasion may require, under the name of the (here insert name of state) State Association of the American Institute of Architects."

These are the amendments proposed by the Committee, and are to be considered at the meeting of the Executive Committee to be held in New York on Monday next. Yours very truly,

ALFRED STONE, Secretary.

After reading same, the following discussion occurred:

Mr. Fallis: In view of these amendments it is impossible for this Chapter to take any action at all for the future. If they are adopted the Chapter will have no existence.

President McLaughlin: These amendments have been suggested, but have not been acted upon. They are to be acted upon by the Executive Committee at its next meeting in New York. They can be published, and then will be in the hands of the Institute, to be adopted or rejected at the convention in October.

Mr. Fallis: We might express our opinion or approval.

President McLaughlin: This paper of Mr. Stone's was sent to us to get an expression. Do we desire to express ourselves on any of these points?

Mr. Fallis: Yes; the State Chapters, in some ways, are much more important than the local Chapters. Our local business tends to draw us away from each other by reason of frequent contest and disappointments, and we cannot meet the local Chapter on the same terms we meet here, where we have no personal matters to interfere with our enjoyment and the pleasant greetings for each other. These state meetings tend to get us better acquainted with each other, and to heal up sores and personal differences, and I would like very much to see the state organization kept up.

The following motion was made by Mr. Yost:

That a committee be appointed by the Chair to formulate a reply as an expression of this convention, which reply shall be presented to and considered by this convention, and, if adopted, to be forwarded to the Executive Committee and Secretary Stone.

The motion prevailing, the chair then appointed Messrs. Yost and Drach as committee, with instructions to report at the next session of the convention.

The Secretary then read a communication from Mr. J. W. Carere, representing a special committee of the New York Chapter, American Institute of Architects, relative to proposed changes in

the schedule of charges of the American Institute of Architects, so as to place competitions under the same heading as preliminary drawings. On motion of Mr. Yost, the matter was referred to the president and secretary to formulate a reply to be presented for consideration at the next session.

The secretary then read a communication from Secretary Stone, of the American Institute of Architects, requesting action on the so-called "McKaig Bill."

Mr. Drach moved that the secretary formulate a request to be presented to the senators and representatives of Ohio in congress asking them to use their influence in securing the passage of the "McKaig Bill"; the paper to be drawn up in the name of the Ohio Chapter of the American Institute of Architects, and signed by the president and secretary.

After an affirmative vote on the motion, the following discussion occurred relative to dues, etc.:

Mr. Fallis: Mr. President, I would like to request that as many as can will pay their dues before my report is made, so that it will show the books as nearly balanced as possible. There is also another matter I wish to bring up, and that is in reference to the local and State Chapters. Members of the local Chapters now pay \$2 dues, and the State Chapter and other members pay \$5. Both receive the same benefit from the State Chapter, and I think it had best be changed to make the dues uniform. It is giving some trouble as it is.

Mr. Drach: Would it not be better to let that matter go until after the meeting of the American Institute, to see what becomes of the State Chapter?

Mr. Yost: This matter was discussed at full length at our last convention, and prior to it, and I supposed that all understood it. The vote was unanimous for its adoption in its present shape. We saw that there were some difficulties to contend with, but in arranging it as it is, we thought we had done the best that could be done. The fact is, that the local Chapter men are not compelled to be members of State Chapter in order to become members of the Institute, while the others are, so that in fact the benefits of the State Chapter in that particular are not equal, and it seems to make too much of a burden on the local Chapter men to pay full dues twice, and to require it would tend to weaken the state organization. I think we have it arranged as well as it can be.

The President then appointed Messrs. Packard and Fallis as first and Messrs. Dexter and Bolles as second nominating committees; also Messrs. Drach and Yost as Auditing Committee.

Mr. Yost then read a paper entitled, "The Style Hunters."

No other papers being offered, after a vote of thanks to Mr. Yost the convention adjourned until 10 A.M. the following day.

SECOND DAY'S SESSION.

The convention was called to order by President McLaughlin, on board the yacht Cora, on Lake Erie.

The treasurer, E. O. Fallis, reported expenditures for the year \$138, and a balance in treasury of \$413.46.

The Auditing Committee reported that they had examined all books and papers and found same correct.

The secretary then read the following report of the Executive Committee:

MEMBERS OF THE OHIO CHAPTER, A. I. A.,—Your committee have the honor to report as follows:

Since the meeting in Columbus, in 1892, bills of expense to the amount of \$138 have been allowed and ordered paid.

On account of the amount of traveling and incidental expense which was incurred by the profession during the year 1893, in connection with the World's Fair, the meeting of the American Institute and World's Congress of Architects, and the probable decrease of resources owing to the financial stringency, no meeting was called at the regular time for 1893.

In October, 1893, a circular letter was issued asking for an expression of the membership regarding the policy of a midwinter session, or a total postponement until the time of holding the regular meeting of 1894. The almost unanimous sentiment expressed was in favor of a postponement.

No requests for arbitration or complaints of any kind having been referred to the Executive Committee, there has been no meeting of same since the convention at Columbus of 1892. There have been no accessions or applications for membership; no deaths, and but one resignation—that of Mr. Guy Tilden, of Canton.

Mr. F. E. Cudell, of Cleveland, having retired from the active practice of the profession, at his request has been transferred to the honorary list.

No business of any moment having been brought before the Executive Committee, the duties of the secretary have been principally routine, such as attending to the correspondence of the Chapter, issuing of calls, etc. Matters of importance which have been presented to the secretary are herewith referred to the convention for consideration and action.

Respectfully submitted,

(Signed)

G. W. KRAMER, Secretary.

This report was received.

The committee to whom was referred the contemplated amendments to By-Laws then made the following report:

COLUMBUS, Ohio, August 18, 1894.

The matter of amendments proposed to be offered for adoption at the next meeting of the Executive Committee, which has been brought to the attention of the convention of the Ohio Chapter, presents questions of vital interest to the profession; and it is the opinion of this committee that the enactment of Section 9, as proposed, will not only not accomplish the purpose which seems to be sought, to-wit: organize the profession of the several states into an effective weapon for its own defense, and to accomplish its best work for the profession, but will destroy the existing State Chapters and leave nothing in their place that can be of any practical use.

In this section as proposed, it is provided that when "occasion may require," the several Chapters shall unite for any purpose other than local, but, who is to determine when the "occasion" has arrived, or how is the union of Chapters to be made? On these points of vital importance the proposed section is silent. Moreover, Section 2 as proposed, and already existing regulations as well, provide for members of the Institute outside of the Chapters.

At present, under proposed Section 9, more than one-half of the profession in Ohio could be deprived of present Chapter privileges, and would have no voice in any state association. Without extending the discussion, it seems

evident to us that if the present State Chapters are to be destroyed, there should be something more efficient as an organization put in their place.

It is the opinion of this committee that the time has arrived when better organization is demanded by the best interests of the profession, and that any policy which does not require members of the Institute to become members of Chapters is weak and temporizing, and that within reasonable time all should be required to become members of the Chapter, whether they ever have been heretofore or not.

It is the opinion of this committee that associate membership in Chapters for beginners in the profession, who have not had sufficient experience to entitle them to Fellowship in the Institute, will be valuable as an inducement to the young practitioner to start in with us, and finally become a member of the Institute.

It is the opinion of this committee that in order to arrange for all members of the Institute becoming members of the Chapter, a less number than ten must be fixed as the minimum number to form a Chapter.

It is also believed that in the larger cities, where there are a great number of architects, much good can be done by having, when the architects in such cities so desire, two or more Chapters, that each will probably number in its membership some who would not be willing to become members of some other Chapter in the same city.

Hence it is believed by this committee that such a thorough organization of the profession as the times demand cannot be effected under the operations of the amendments as suggested.

The system of delegate representation is approved.

In view of the opinion above expressed, we would suggest that Article X be put into the following form, for the consideration of the Executive Committee:

"BY-LAWS—ARTICLE X.

"SECTION 1. The Institute shall provide for a thorough organization of the profession, so far as practicable, by the formation of new, and the continuance of existing Chapters, and such state organizations, to be known as an association, as may be found to be practicable and beneficial.

"All Chapters shall act under charters issued by the board of directors of the Institute, which charters shall define the limits of the territory and jurisdiction of the several Chapters. Chapters and associations shall make their own By-Laws and rules of action, not inconsistent with the Constitution and By-Laws of the Institute.

"The Executive Committee of the Institute shall annually—not later than March 1—make such subdivision of the territory of each state into Chapter districts as the interests of the profession therein seem to demand, but no change shall be made in the territory or jurisdiction of any Chapter after being once assigned, without first consulting the wishes of the Chapter interested.

"SEC. 2. On and after January 1, 1896, each member of the Institution shall, as a requisite to such membership, be a regular member in good standing in a Chapter in whose jurisdiction he resides, but in no case shall the initiation fee in any Chapter for regular membership be more than \$10, nor the annual dues more than \$5.

"Persons not now members of Chapters must first be elected members of the Institute before becoming eligible as regular members of Chapters. Upon election as members of the Institute, and the payment of Chapter initiation fee, persons will become regular members of Chapters in whose jurisdiction they reside.

"Loss of membership in the Institute constitutes loss of membership in the Chapter.

"Violations of the rules of the Chapters shall be referred to the Executive Committee of the Institute, and shall be, by them, treated as though the offense was against the Institute.

"Any person now an associate member of any Chapter shall be eligible to retain such membership until January 1, 1896, when such membership will terminate unless such persons shall, in the meantime, become regular members by election to the Institute, and persons hereafter elected associate members of Chapters must, within two years thereafter, become regular members of the Institute, or forfeit membership in the Chapter.

"Each Chapter may provide for such classes of members, other than regular and associate members, as it may deem proper, and define the privileges and duties of each, not inconsistent herewith.

"Any six members of the Institute may form a Chapter, provided the location be approved by the Executive Committee, and provided that there be no other Chapter of less than fifty members in the same Chapter district.

"When two or more Chapters are in the same Chapter district, persons desiring to become members may elect which of the Chapters shall receive their membership.

"SEC. 3. When there are two or more Chapters in a state, the presidents of the several Chapters shall constitute a state executive board, who shall organize as early as practicable after January 1, 1896, and annually thereafter, in January, at the capital of the state at the call of the president of the oldest chartered Chapter in such state. Their organization shall consist of the election of a president, a secretary and treasurer, and the prescribing of their duties and the adoption of rules and regulations for the government of the executive board.

"The state executive boards shall have general charge of state professional interests, and shall hold four regular meetings each year, and shall annually call a joint convention of all the Chapters in the state, to be held at such time and place as the board shall determine.

"The several Chapters shall provide for the payment of the expenses of the executive boards and annual convention, each Chapter contributing in proportion to its number of members.

"SEC. 4. Chapters other than local, now existing, are authorized to retain all present powers and privileges until January 1, 1896, when their charters shall be returned to the Executive Committee of the Institute, when such Chapters shall be legitimately succeeded by, and all their archives and possessions (including funds) transferred to, the state executive boards provided for in Section 3.

"SEC. 5. DELEGATIONS.—A Chapter may send to any convention of the Institute one or more Fellows properly accredited by vote of a meeting of said Chapter as its delegates upon such questions as shall be defined in the credentials, and on motions upon such questions the delegation may vote (in addition to each delegate's personal vote) one vote for each absent Fellow of the Chapter who shall be recorded in the credentials as having at the accrediting Chapter meeting voted to so authorize the delegation; but no additional privileges of debate nor any vote in elections shall be exercised by a delegation, as such, it being understood that each delegate retains unimpaired all his personal privileges."

Respectfully yours,

GUSTAVE DRACH,
J. W. YOST,
Committee.

The report was adopted and secretary was instructed to immediately forward copy of same to Secretary Stone, and the Executive Committee of the American Institute of Architects.

The secretary then read the report of the Committee on the McKaig Bill, which took the form of a resolution, as follows:

Resolved, That we respectfully request our senators and representatives to do all in their power to further the passage by the present congress of the McKaig bill, regulating designs, etc., for government buildings.

The resolution was passed unanimously, and the president and secretary were instructed to forward copies to the senators and members of the house from Ohio, and also to forward copies to the members of the Chapter for personal use in the same direction.

The secretary then read a communication from the president of the St. Louis Chapter, indicating that the St. Louis Chapter

had indorsed the contemplated action as outlined by the New York Chapter relative to a change of schedule as regards competitions. The committee recommended that the Ohio Chapter take similar action.

The following resolution was then passed unanimously:

Resolved, That the Ohio Chapter indorse the action taken and the recommendations offered by the New York Chapter relative to changing the schedule of the American Institute of Architects as regards preliminary services and competitions, and as indicated in their communication.

The Nominating Committee then reported the two following tickets for election:

President, J. W. McLaughlin; first vice-president, George W. Kramer; second vice-president, C. A. Stribling; secretary, J. W. Yost; treasurer, J. N. Richardson. Executive Committee—C. F. Schweinfurth, A. O. Elzner, H. A. Linthwaite. Place of meeting—Cleveland.

President, J. W. Yost; first vice-president, H. E. Siter; second vice-president, S. R. Burns; secretary, George W. Kramer; treasurer, E. O. Fallis. Executive Committee—C. F. Schweinfurth, G. W. Drach, W. M. Aiken. Place of meeting—Cincinnati.

The convention then proceeded to elect officers for the ensuing year, which resulted as follows (Mr. McLaughlin declining to serve longer as president):

President, J. W. Yost, of Columbus; first vice-president, H. E. Siter, of Cincinnati; second vice-president, S. R. Burns, of Dayton; secretary, George W. Kramer, of Akron; treasurer, E. O. Fallis, of Toledo. Executive Committee—J. W. McLaughlin, of Cincinnati, C. F. Schweinfurth, of Cleveland, H. A. Linthwaite, of Columbus. Place for holding next convention—Cincinnati.

President McLaughlin then expressed his thanks for the honors bestowed upon him for the past three years, and introduced his successor, who expressed his thanks for the honor of being elected president.

A vote of thanks was then passed for the retiring officers and the stenographer, after which the convention adjourned.

WESTERN NEW YORK CHAPTER A. I. A.

THE annual meeting of the Western New York Chapter of the American Institute of Architects was held at the rooms of the Chamber of Commerce, Rochester, New York, September 24, 1894. President F. H. Gouge, of Utica, presiding. Mr. H. H. Bickford, of Elmira, secretary.

In the president's annual address he referred to the great loss which the Chapter as well as the profession in general had sustained in the death of W. W. Carlin. Later in the meeting Mr. J. H. Pierce read a memorial minute on the life of Mr. Carlin which he had prepared by direction of the executive committee. This was adopted and an engrossed copy will be sent to the surviving family.

The election of officers resulted in the choice of the following to serve during the ensuing year:

President, J. H. Pierce, Elmira, N. Y.; secretary, John R. Church, Rochester, N. Y.; treasurer, Charles F. Crandall, Rochester, N. Y.; first vice-president, Otto Block, Rochester, N. Y.; second vice-president, Joseph Blaby, Palmyra, N. Y.

Executive committee—J. H. Pierce, John R. Church, Charles F. Crandall, Charles E. Colton, Syracuse, and F. H. Gouge, Utica, New York.

The Chapter voted as favoring the adoption of the amendments to Article X of By-Laws of the American Institute of Architects proposed by the Ohio Chapter.

The meeting closed with a banquet held in the evening at the Alberger Café, at which Mr. Thomas Nolan read a very instructive paper on "The Cancellaria Palace of Rome," following which Mr. F. H. Gouge gave an interesting account of a "Trip Through France." Both of these papers were illustrated by the stereopticon, and were highly enjoyed by all.

A BEAUX-ARTS COMPETITION AMONG DRAFTSMEN.

NEW YORK, September 28, 1894.

DEAR SIR,—On petition of the T-Square Club, of Philadelphia, the Sketch Club of New York and the Boston Architectural Club, the Beaux-Arts Society of New York has assumed control of an interarchitectural club competition the local announcement of which is hereto attached.

The programme issued by the Beaux-Arts Society for this purpose is the same as that which they independently have formulated as "Competition No. 1," being the first of a sequence they are now initiating.

By this arrangement the drawings submitted in the interclub competition may be absorbed into the Beaux-Arts Competition No. 1, if the individual competitor so desires.

All competing clubs in the interclub competition may submit any number of designs in fulfillment of the programme, but it is stipulated that each club shall nominate a particular design among those submitted by it as the one representative of their best work, to be put in competition with like nominees of the other clubs. It is upon such representation alone that the interclub competition will be judged.

As the initiative clubs have deemed it expedient to leave the method of local conduct and advertisement entirely to each competing club, you are requested to coöperate with them in giving this programme full publicity, either through ordinary channels or

by special announcement such as the inclosed circular issued by the Sketch Club of New York. Yours very truly,

G. W. E. FIELD,
Secretary Joint Committee, 910 Lincoln Building, Union Square.

SKETCH CLUB OF NEW YORK.

Announcement of Interclub Competition.

The members of the Sketch Club of New York are advised that the Beaux-Arts Society has undertaken the control of a competition open to all members of all architectural sketch clubs in the United States.

The object of this undertaking is to encourage a friendly spirit of rivalry among the several prominent sketch clubs in America; and to draw out from their ranks the best individual talent in support of well-earned reputations. The competition will be decided on the merits of club representations, but individual excellence will also be properly credited.

There will be no awards other than honor rank to club and individual; the assumption being that a competition under such auspices and conditions as are here mentioned will be a sufficient incentive for the very best efforts.

The programme issued by the Beaux-Arts Society is given on this page. Mr. Ernest Flagg begs to announce that in connection with the work of the class in design under his management at the rooms of the Sketch Club, he intends to use the programme here published as the *projet* for the class work, and will be pleased to have all intending competitors take advantage of the curriculum.

Mr. Flagg will meet all such members at the clubrooms at 8 o'clock on Friday evening, September 28, to discuss the problem. HENRY H. BRAUN,
September 25, 1894. Corresponding Secretary.

BEAUX-ART SOCIETY—COMPETITION No. 1.

TERMS OF COMPETITION.

This competition will be open to all students of the members of the Beaux-Arts Society, the Department of Architecture of Columbia College, the University of Pennsylvania, Harvard University, Boston Institute of Technology, Cornell University, School of Architecture, Syracuse, New York, and to all members of the New York Sketch Club, Boston Architectural Club, and Philadelphia T-Square Club.

All drawings must conform strictly to the conditions of the programme, and must be mounted on strainers without frames or glass, and must be delivered, express prepaid, on or before December 1, 1894, at the rooms of the New York Sketch Club, 1473 Broadway, addressed to Mr. G. W. E. Field.

The drawings will be exhibited publicly for at least two days prior to the judgment, and three days after.

The drawings will be judged by the following members of the Beaux-Arts Society: Messrs. John M. Carrere, Ernest Flagg, John G. Howard, Committee on Education; W. A. Boring, E. L. Masqueray, Whitney Warren, Thomas Hastings, W. B. Chambers, J. Edward Howe, and Grenville T. Snelling, who will award a medal to the design placed first, and will award first and second mentions, according to merit, to such other designs as may seem worthy of consideration.

All drawings must be sent for within one week after the close of the exhibition. Out of town drawings will be returned by express, upon request, at the owner's expense.

All intending competitors will please notify Mr. John M. Carrere, No. 44 Broadway, New York, not later than November 15, so that suitable arrangements may be made for the exhibition of drawings.

PROGRAMME.

A Small Theater for Cantatas.

A wealthy amateur of music, whose winters are spent upon his vast estates in the South, has decided to erect at the end of his grounds a small theater for the representation of cantatas, and occasionally of light plays.

This little building should consist of an auditorium, with or without a balcony, capable of seating eighty or one hundred persons luxuriously; a suitable stage, without, however, too much space in the wings; and vestibules, dressing rooms, green room, toilet rooms, etc.—in fact, all that should be found in such a temple of scenic art.

The owner has acquired an exquisite capital of the Ionic order from one of the early Roman Temples, and proposes to use it in the decoration of the porch. The building will therefore naturally conform to the note thus struck, so that all shall be in perfect keeping.

The greatest dimension should not be more than eighty-five feet.

The following drawings will be required, and none others will be received: A plan of the building which may show the surroundings and approaches, and a section at the scale of $\frac{1}{8}$ inch to the foot; the principal elevation at the scale of $\frac{1}{4}$ inch to the foot, and a drawing of the detail of the order, at the scale of three inches to the foot.

All drawings must be rendered in wash with cast shadows, to be mounted on strainers without frames or glass, and must be delivered, express prepaid, on or before December 1, 1894, at the rooms of the New York Sketch Club, 1473 Broadway, addressed to Mr. G. W. E. Field.

Address all communications to Mr. G. W. E. Field, No. 910 Lincoln Building, Union Square, New York.

The cordiality with which the Beaux-Arts extends this invitation to compete to the draftsmen of America, and the equal terms offered, should lead every draftsman to take the greatest personal interest in the work of securing for his craft the fullest representation.

CORRESPONDENCE.

THE S. I. A. ARCHITECTURAL EXHIBIT.

ATLANTA, Ga., September 19, 1894.

Editors *Inland Architect*:

In view of the architectural exhibit to be held under the auspices of the Southern Institute of Architects, at the Cotton States and International Exposition, we desire to extend an invitation to all American architects to participate in the exhibit, and will be glad to have them correspond with us in regard to the matter as early as possible, in order that we might determine as to the amount of space required to accommodate those who wish to exhibit their drawings. We hope to have one of the largest and best displays of architecture ever had in America, hence we take pleasure in inviting all architects to join us in this magnificent display, and request that they correspond with us as early as possible. Trusting that you will make a note of this in your next issue, we are, Yours truly,

SOUTHERN INSTITUTE OF ARCHITECTS.

All correspondence will be addressed to A. J. Bryan, corresponding secretary, fourth floor The Grand, Atlanta, Georgia.

*Mr. Church informs us that the Beaux-Arts competition is open to all clubs that enter the Interclub Competition, and that he aimed to make his circular clear on this point, for the omission is noticeable in the circular under caption "Competition No. 1." However, the Interclub Competition gives access to the Beaux-Arts project, although a limitation is mentioned in their independent programme.—EDITOR.

OUR ILLUSTRATIONS.

Two residences by Manly N. Cutter, architect, New York. Apartment Building, Chicago. Flanders & Zimmermann, architects.

Residence of Mrs. J. Price, Cincinnati, Ohio. W. W. Franklin, architect.

Residence of John N. Bagley, Detroit. Rogers & MacFarlane, architects.

Sketches: St. Trinite-Falaise; Door-Onzain, France. E. C. Jensen, del.

"The Commerce" Building, Louisville, Kentucky. C. A. Curtin, architect.

The John C. Lewis Company Building, Louisville, Kentucky. C. A. Curtin, architect.

Chicago Sketch Club competition, "A Roadhouse for Cyclists." First Place, John Johnson.

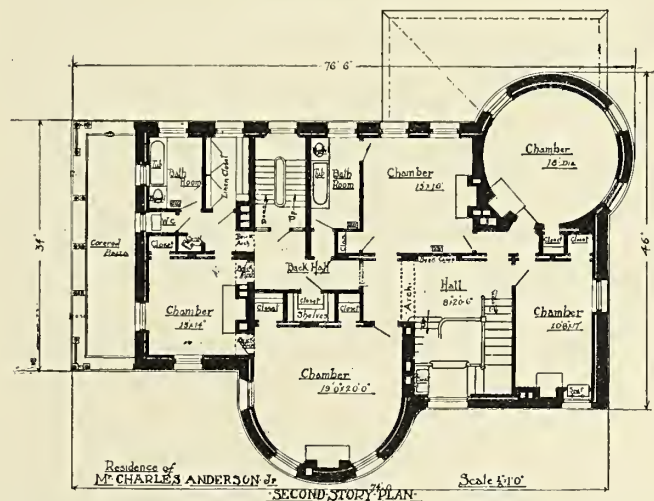
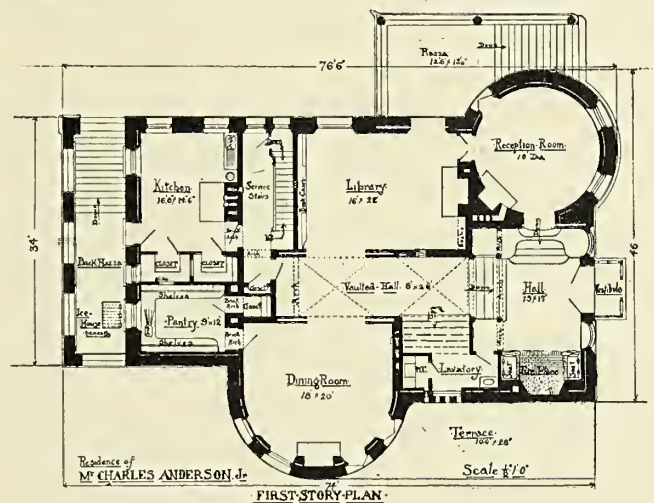
Auditorium and Gymnasium for the Y. M. C. A., Dubuque, Iowa. T. T. Carkeek, architect.

House of Wilson P. H. Turner, Normandy, Missouri. E. A. Manny, architect, St. Louis, Missouri.

Sketches: An Old-Time Roadside Inn, at East Sharon, Massachusetts; The Old Cobb's Tavern, Canton, Massachusetts. E. Eldon Deane, del., New York.

Albion Memorial Universalist Church. Built for George M. Pullman at Albion, New York, in memory of his father. Walls of brown Medina stone; roof of Couesera tile; finish quarter-sawn white oak; stained glass, including memorial window, and decorations by Tiffany & Co.; steam heat; electric light; costly organ. Cost of church about \$46,000.

The following floor plans show the arrangement of residence of C. Anderson, Jr., published in our July, 1894, number, under title of "A Residence in Cincinnati." William Martin Aiken was architect.



Photogravure Plate: Houses for T. G. Butlin, Chicago; Beers, Clay & Dutton, architects.

PHOTOGRAVURE PLATES.

Issued only with the Photogravure edition.

Church at Philadelphia.

Church at Evanston, Illinois; Burnham & Root, architects, Chicago.

Residence for M. L. Wheeler, Chicago; Kleinpell & Borst, architects.

Residence of Bryan Lathrop, Chicago; McKim, Mead & White, architects, New York.

New York Life Building, Chicago. Three full-page plates are given, showing view of exterior, an exterior detail, and view in entrance. For detailed description see page 30 of this number.

ASSOCIATION NOTES.

CHICAGO SOCIETY OF AMATEUR PHOTOGRAPHERS.

The Chicago Lantern Slide Club has reorganized as above, and incorporated. For the present its regular meetings will be held on the second and fourth Wednesday evenings, at the clubrooms of the Noonday Rest, No. 4 East Monroe street, southwest corner of Michigan avenue.

The society is a member of the International Lantern Slide Interchange, and receives during each month of the season two sets of one hundred stereopticon pictures.

The following extracts from the Interchange rules show the system and also the benefits derived from the organization:

On the 15th of October of each year, all photographic clubs in the International Lantern Slide Interchange send to the managers in New York a box containing one hundred pictures made from the members' best negatives. These are carefully examined, and all good work accepted. On the 1st of November these are started on the route, so that every club has a different set of lantern slides each month until the entire work of the Interchange has been seen.

The following cities are represented in the International Interchange: New York, Philadelphia, Baltimore, Newark (New Jersey), New Orleans, Cincinnati, St. Louis, San Francisco, Minneapolis, Chicago, Detroit, Buffalo, Syracuse, Albany, Portland, Cambridge (Massachusetts). Also foreign societies in England, France and Austria.

Criticisms and discussions upon the work exhibited upon the screen will be conducted by the members. Also new processes in photographic productions shown and explained.

The officers will endeavor to make the society interesting for all lovers of the art-science as well as instructing for beginners, and solicits the assistance of all dealers in photographic goods.

During September and October the society must gather its best pictures and prepare the set for the International Interchange. These test meetings are usually of great benefit to the members, and practically the working months of the year.

If you are an amateur photographer and love to see pictures, join this society.

Application blanks can be procured from E. J. Wagner, 1216 Michigan avenue; T. W. Sheardown, 143 Wabash avenue; W. A. Morse, Board of Trade; F. Dundas Todd, 15 Tribune building, or at the rooms of The Noonday Rest, No. 4 East Monroe street.

ILLINOIS CHAPTER A. I. A.

The following letter was sent to the Civic Federation, the Real Estate Board, the Builders' and Traders' Exchange, the Chicago Society of Artists and the Chicago Society of Civil Engineers by the recently appointed committee upon public buildings and grounds:

CHICAGO, Ill., September 24, 1894.

GENTLEMEN,—We believe that Chicago is entering a new period of its development. It was natural that after the great fire a long period should be required for recuperation, during which little attention could be given to matters of luxury or beauty. Yet while our business district has been built up in a substantial manner, much else has been done in the development of our parks and boulevards, and in the erection of beautiful residences, so that today our city may well be proud of its achievements in these directions.

When, however, we compare ourselves with other great cities, we find that while we have beautified the circumference of our municipality, we have little interest in its center, and we are lacking in libraries, museums and other public buildings. We have begun already to remedy this deficiency by the erection of permanent buildings for the Art Institute, Public Library, Newberry Library, and Academy of Sciences. These mark, as we believe, the beginning of a period of public buildings. Such buildings will be the glory or the disgrace of our city, according as they are erected wisely on a well-considered plan, or left to haphazard. It is not enough that such building should be beautiful in itself, but if we are to have anything to compare with architecture of other great cities, or anything permanent to take the place of the glories of the White City, now gone forever, we must have our finest buildings massed in some one place and arranged according to a preconceived scheme. We need also an appropriate location for monumental works and works of sculpture which are now going into our outlying parks.

As an indication that the time is now ripe for a discussion of this question, we need only mention the agitation for a new county courthouse, city hall, postoffice, customhouse, and United States Courthouse, the need for a centrally located building for the Field Columbian Museum, for a permanent Exposition building and armories and drill grounds for our National Guard.

The undersigned have been appointed by the Illinois Chapter of the American Institute of Architects as a standing committee on public buildings and grounds. In an undertaking of such magnitude, and affecting all classes of our population, we need the advice and cooperation of all thoughtful citizens. Therefore, in order to get representative opinions on this subject, we suggest that a committee of three be appointed by each of the following organizations, namely: The Real Estate Board, Builders' and Traders' Exchange, Chicago Society of Artists, and the Civic Federation. We invite these committees to meet with our committee and discuss the question of our public buildings and grounds.

Will your organization kindly take action as soon as possible on the appointment of such a committee, and send notice of its action to the chairman of our committee, Room 50, Montauk block. When replies have been received, arrangements will be made for a meeting. (Signed)

N. S. PATTON,
S. A. TREAT,
P. B. WIGHT.

SYNOPSIS OF BUILDING NEWS.

Architects are invited to furnish for publication in this department monthly or occasional reports of their new work before the letting of contracts. Reports of buildings costing less than \$5,000 are not published.

Chicago, Ill.—Architects Furst & Rudolph: For L. Klein, at the southeast corner of Halsted and Liberty streets, a three-story and basement, store and flat building, 75 by 120 feet in size; to be of pressed brick and stone front, have all the modern improvements, heating, etc.

Architect H. P. Harned: For M. Burke, at 2815 Michigan avenue, remodeling building; will put in new plumbing, hardwood finish, mantels, gas fixtures, heating, etc.

Architect G. W. Maher: For J. C. Scales, at Buena Park, a handsome two-story, attic and basement residence, 45 by 64 feet in size; to be constructed of bowlders up to the roof, have hardwood interior finish, electric light, steam heating, etc.

Architects Gassman & Probst: For B. Johnson, at the corner of Kedzie and Lexington avenues, a three-story apartment house, 33 by 78 feet in size; to have a front of pressed brick and stone, the sanitary improvements, gas fixtures, etc. For W. Sanders, a block of three-story flats, 200 feet front and 67 feet deep, to be erected at Catalpa place and Fullerton avenue; they will have

pressed brick and stone fronts, hardwood finish and mantels, heating, etc. For M. Ferguson, at Armitage avenue and Rockwell street, a three-story store and flat building, 175 by 62 feet in size; to be of stone and pressed brick front, have all the modern improvements.

Architect W. J. Van Keuren: For Jacob Frauk, at River Forest, a two-story residence; to be of frame with stone basement, have hardwood interior, electric light, hot-water heating, etc. For M. H. Emerson, four two-story, basement and attic residences; to be erected at Austin; they will be of frame with stone basements, have hardwood interior finish, gas fixtures, mantels, furnaces, etc. For Messrs. Redard & Morency, at Lambert avenue and Lake boulevard, Ridgeland, a two-story planing mill, 60 by 200 feet in size; to be of common brick, have electric light, etc.

Architect Victor Hellstrom: For N. Nelson, at 1621 Melrose street, a three-story and basement flat building, 21 by 54 feet in size; to have a front of galvanized iron, all the modern plumbing, gas fixtures, mantels, etc.

Architect George S. Kingsley: For Dr. W. D. Lonergan, at Summerdale, a two-story, attic and basement residence, 32 by 43 feet in size; to be of frame with stone basement, have all the modern plumbing, gas fixtures, mantels, laundry fixtures, furnace, etc.

Architect George Grussing: For Joseph Conley, at Forty-seventh and Polk streets, a two-story and basement flat building, 25 by 56 feet in size; to have sanitary plumbing, mantels, gas fixtures, etc. For Mrs. Catherine Herbert, at Fairfield avenue near Thirteenth street, a three-story flat building, 22 by 60 feet in size; to have a front of stone and pressed brick, the modern plumbing, gas fixtures, furnaces, mantels, etc. For Thomas Lee, a two-story and basement flat building, 23 by 60 feet in size; to be erected at Lexington avenue near Fortieth street; to be of stone front and porch, have hardwood finish, mantels, modern plumbing and heating. For Patrick Grady, a frame residence, 22 by 50 feet in size; to be built at Polk street near West Forty-seventh; gas fixtures, the sanitary improvements, mantels.

Architect George S. Banister: For James A. & E. A. Hunter, a two-story store and office building, 22 by 80 feet in size; to be erected at Odell, Illinois; to be of pressed brick and stone front, and galvanized iron. For T. B. Broughan, at 5131 Washington avenue, remodeling residence. For W. J. Boulter, at 3220 Lowe avenue, a three-story flat building, 22 by 73 feet in size; to have a cut stone front, pine finish, gas fixtures, etc.

Architect D. L. Pentecost: For M. J. O'Brien, at 432 South California avenue, a three-story store and flat building, 24 by 52 feet in size; to have a pressed brick and stone front, all the sanitary improvements, mantels, etc. For George Eaton, at the southeast corner of Madison street and California avenue, remodeling building.

Architect L. G. Hallberg: For Carl Osterstrom, at Wolfram street near Sheffield avenue, a three-story flat building, 26 by 56 feet in size; to have a stone front, all the modern plumbing, gas fixtures, etc. For J. A. Lundahl, at Wolfram street, a three-story flat building, 26 by 51 feet in size; to have a pressed brick and stone front, all the modern improvements, heating, etc.

Architect C. M. Almquist: For J. Hake, a three-story flat building, 23 by 54 feet in size; to have a stone front and all improvements. For Charles Anderson, a three-story flat building, 24 by 80 feet in size; to have a stone front, the sanitary plumbing, heating, etc.; to be erected on Wilton avenue, between Addison street and Cornelia avenue. For F. Hartburg, at same place as above, a three-story flat building, 24 by 57 feet in size; to have a pressed brick and stone front, the modern improvements, heating, etc.

Architect C. R. Adams: For H. Harvey, at Rogers Park, a two-story, basement and attic residence, 35 by 53 feet in size; to be of frame construction, have stone basement, the sanitary improvements, hardwood finish, mantels, gas fixtures, etc. For C. H. Stoelting, a two-story, basement and attic residence, 26 by 42 feet in size; to be erected at Rogers Park; to be of frame with stone basement, have all the modern improvements, heating, etc. For C. H. Burbank, at Rogers Park, a three-story and basement hall, office and store building, 25 by 70 feet in size; to have a front of pressed brick and stone, the modern plumbing, mantels, etc. For P. Phillips, at Rogers Park, a two-story store and flat building, 46 by 52 feet in size; to be of common brick, tuck pointed.

Architect Joseph Bettinghofer: For William Vanderbosch, a four-story and basement double flat building, 45 by 60 feet in size; to be erected at 366 and 368 Cleveland avenue; it will have a stone front and stone bays and porch, hardwood interior finish, mantels, gas fixtures, plate and beveled glass, modern plumbing, etc. For Peter Haas, a three-story and basement flat building, 21 by 80 feet in size; to be erected at 544 Larrabee street; it will have a front of pressed brick and stone, Georgia pine interior finish, mantels, gas fixtures.

Architect Henry Koll: For Mrs. Sporleder, a three-story store and flat building, 25 by 80 feet in size; to be erected at 845 North Clark street; to have a stone front, all the modern plumbing, mantels, gas fixtures, heating, laundries, etc. For Mr. H. Detman, a three-story flat building, 30 by 50 feet in size; to be erected at 256 Burling street; to be of stone first story, and pressed brick and stone above, with slate mansard roof; have hardwood finish, the sanitary improvements, etc. For Frank Burgermeister, at Paulina street and Lincoln avenue, a two-story flat building.

Architect C. A. Strandel: For Frank Peterson, a three-story and basement flat building; 22 by 76 feet in size; to be erected at 675 Sheffield avenue; it will be of pressed brick and stone front, have all the modern plumbing, mantels, etc.

Architects Curry & Foster: Making plans for a two-story residence, 34 by 49 feet in size; to be erected at Winnetka; frame, stone basement, sanitary plumbing, electric light, etc.

Architects Bright & Burfeind: Making plans for the Evangelical Lutheran church, 40 by 60 feet in size; to be erected at Grand Crossing; to be of frame, with stone basement, have Georgia pine interior finish, furnace, etc.

Architect Robert C. Berlin: For H. T. Davis, a two-story, basement and attic residence, 22 by 68 feet in size; to be erected at Forty-fifth street and Vincennes avenue; it will have a handsome buff Bedford stone front, hardwood interior finish, mantels, gas fixtures, heating.

Architect W. F. Pagels: For J. C. Walter, a three-story flat and store building, 25 by 90 feet in size; to be erected at Division street; the front will be of stone; all the modern plumbing will be put in, mantels, gas fixtures, heating, speaking tubes.

Architect Julius Speyer: For Charles Puddy, a two-story store and flat building; to be erected at Twelfth street near Spaulding avenue; to have a stone front, sanitary plumbing, mantels, gas fixtures, electric wiring, etc.

Architect J. H. Wagner: For D. L. Place, an eight-story factory, 50 by 100 feet in size; to be erected at the corner of Clinton and Harrison streets; to be of pressed brick and stone front, have steam heating, elevators, electric light. For T. B. Jefferey, at the corner of Sunnyside avenue and Malden streets, Ravenswood, a two-story barn, 40 by 24; to be of pressed brick and stone, with galvanized iron trimmings; have plumbing, gas fixtures, etc.

Architects Elmendorf & Park: Making plans for a two-story school, 42 by 40 feet in size; to be built at Wheaton, Illinois; it will be of Colonial design, and be of frame, with pressed brick veneer all round; have plumbing, heating, etc. For Charles Elvey, a two-story store and flat building, 25 by 52 feet in size; to be erected at Madison street near Spanlding avenue; it will be of pressed brick and stone front, have all the sanitary improvements, gas fixtures, mantels, heating, etc.

Architect Jules De Horvath: For Al Thompson, a four-story store and apartment house, 58 by 151 feet in size; to be erected at the corner of Van Buren and Sangamon streets; it will be of pressed brick and stone front, have all the modern sanitary improvements, gas fixtures, mantels, electric light, hardwood interior finish, steam heating, etc.

Architect Ira C. Saxe: For R. D. Houlihan, at Baxter street near Noble avenue, a three-story flat building; to be of pressed brick and stone front, have all improvements. For Charles Holmes, a three-story store and flat building, 26 by 56 feet in size; to be erected at Sixty-third street near Morgan, Englewood; it will be of pressed brick and stone front, have all the modern plumbing, gas fixtures, mantels, furnaces, etc.

Architect Julius H. Huber: For Charles Steinbrecher, a four-story store and flat building, 44 by 100 feet in size; to be erected at Milwaukee avenue and Upton street; it will have a stone front, all the sanitary plumbing, hardwood finish and mantels, gas fixtures, electric wiring, etc. For J. L. Cochran, six

two-story, attic and basement residences, about 24 by 50 feet in size; to be erected at Edgewater; they will be of frame with pressed brick and stone basements, have hardwood interiors, all the modern open sanitary plumbing, electric light, heating, etc.

Architects Hardy & Cady: For Hurlbert Dunlevy, a two-story residence, 31 by 75 feet in size; to be erected at Spring Lake. For Edwin F. Brown, at Evanston, a handsome two-story frame residence.

Architects Hill & Woltersdorf: For Judge Lambert Tree, a one-story store, 49 by 60 feet in size; to be built at the corner of Clark street near Harrison. Also made plans for same owner for a two-story and three-story building, now being erected at the corner of State and Ontario streets; pressed brick and stone front, the sanitary improvements, electric light, steam heating.

Architect H. H. Richards made plans for a young ladies' seminary, 65 by 80 feet in size; three-story and basement, to be erected at Auburn Park; the first story will be of Bedford stone and above of pressed brick and stone; the first floor will be finished in oak and the rest in Georgia pine; all the modern sanitary improvements will be put in, gas fixtures, heating, etc.

Architect F. B. Townsend: For Thomas E. Fry, a two-story, basement and attic residence, 30 by 50 feet in size; to be erected at Buena Park; it will be of frame with stone basement, have hardwood interior, mantels, electric wiring, furnace, etc. For Adolph Kreis, a two-story residence; to be erected at Rogers Park; to be of frame with stone basement.

Architect James Burns: For Gudgeon Brothers, a two-story flat building, 50 by 60 feet in size; to be erected at Lawndale and Ogden avenues; to have a stone front, all the modern sanitary improvements, hardwood finish, mantels, gas fixtures, heating, etc.

Architects Dixon & Brookes: For Arthur Dixon Transfer Company, at 299 Fifth avenue, a three-story addition to warehouse; also made plans for three two-story residences, to be erected at Vernon avenue near Forty-third street, for C. F. Stewart; stone fronts, hardwood interiors, mantels, gas fixtures, copper bays, heating, etc.

Architects Curtis & McDonald: For G. B. Cuneo, a two-story store and flat building; to be erected at Austin, to be of pressed brick and stone fronts, have all the modern plumbing, mantels, gas fixtures, etc. For M. Rogers, at Edgewater, a two-story stable, to be of stone and frame, have plumbing, etc.

Architects Ostling Brothers made drawings for a Baptist church; to be erected at the corner of Noble and Clifton avenues; to be of pressed brick and stone front, have plumbing, gas fixtures, furnace, etc.

Architect J. P. Hubbell: For W. L. Abbott, a two-story, basement and attic residence, 31 by 48 feet in size; to be erected at Sheridan Park, Ravenswood; it will be of frame with stone basement, have hardwood interior finish and mantels, gas and electric fixtures, hot-water heating.

Architect F. W. Perkins: For J. W. Kilmore, a three-story and basement residence, 25 by 65 feet in size; to be erected at Washington boulevard near the park. It will have a handsome stone front, hardwood finish and all improvements. For Richard Bray, a two-story, basement and attic residence, 30 by 52 feet in size; to be erected at Arlington Heights; to be of frame with stone basement, all the modern plumbing, heating, etc.

Architect C. T. Freijs: For G. Rudelius, a two-story flat building, 72 by 51 feet in size; to be erected at Oak Grove near Clark street; to have a front of stone and pressed brick, the sanitary plumbing, mantels, gas fixtures, furnaces, etc.

Architect A. Druiding: Made drawings for a handsome Gothic church, 46 by 114 feet in size; to be erected at Gubser, Campbell county, Kentucky; it will be constructed of pressed brick with stone trimmings, have gas fixtures, heating, etc.; it will have a steeple 126 feet high.

Architects Swift & Hall: For Albert J. Koch, two two-story flats, to be erected at 1218 Flournoy street; to have stone fronts, all the modern plumbing, gas fixtures, mantels, bells, speaking tubes, furnaces.

Architect S. N. Crowen: For E. Eggleston, a three-story flat building, 24 by 70 feet in size; to be erected on Randolph street near Union Park; to be of pressed brick and stone front, have hardwood finish and mantels, gas fixtures, furnaces, etc.

Architect D. T. Kennard: For George Bancroft, a four-story and basement apartment house, 50 by 110 feet in size; to be erected at Ellis avenue near Forty-seventh street; to have a beautiful stone front, hardwood interior finish and mantels, gas and electric fixtures, steam heating.

Architect W. L. Leshar: For Mr. William Dee, a two-story flat building, to be erected at Calumet avenue near Forty-first street; stone front, all improvements, furnaces, etc.

Architect Charles A. Strandel: For Magnus Orr, a three-story and basement residence; size, 25 by 53; pressed brick and stone trimmings; to cost \$5,000.

Architect Frederick Foehringer: For Dr. Frederick Kleene, a four-story store and flat building, 24 by 80 feet in size; to be erected at Division street near Wood; to be of stone front and pressed brick and stone on the side; have all the modern plumbing, mantels, gas fixtures, electric wiring, heating, etc. For Mrs. Minnie Steinmetz, a three-story and basement flat building; to be erected at 705 Orchard street; to have a stone front, the modern plumbing, mantels, gas fixtures, bells, speaking tubes, etc.

Architect D. A. Lapointe: For B. Quirk, at Washington boulevard near the park, a three-story apartment house, 50 by 155 feet in size; to be of stone front of very handsome design and pressed brick with stone trimmings on the side; will put in the best of sanitary plumbing, hardwood finish and mantels, gas fixtures, heating, etc. Also made plans for a three-story and basement flat building, 25 by 80 feet in size; to be erected at Fulton street near Kedzie avenue; it will have a buff Bedford stone front, hardwood finish and mantels, gas and electric fixtures, furnaces, etc. For P. Plateau, a three-story flat building, 25 by 70 feet in size; to be erected at Harvard street near Albany avenue; it will have a blue Bedford stone front, hardwood finish and mantels, gas fixtures, electric wiring, laundry tubs, etc. Also for J. L. Adams, a two-story flat building, 25 by 60 feet in size; to be erected at 1531 Fulton street; to have a neatly designed Portland stone front, hardwood interior finish and mantels, gas and electric fixtures, laundry fixtures, furnaces. For J. McGee, a three-story flat building; to be erected at Fulton street and St. Louis avenue; to be of stone and pressed brick front, have all the modern sanitary improvements, gas and electric fixtures, gas ranges and fireplaces, laundry fixtures and heating.

Architect D. Mahaffey: Made plans for a two-story foundry, 50 by 74 feet in size; to be erected at Fillmore street near St. Louis avenue; to be of common brick, have electric light, heating, plumbing, etc.

Architect F. B. Townsend: For W. J. Leadbeater, a three-story residence, 23 by 76 feet in size, to be erected at Forty-eighth street and Michigan avenue; it will have a stone front, hardwood interior finish, mantels, gas and electric fixtures, laundry fixtures, hot-water heating. Also for Adolph Kreis, a two-story and basement frame residence, 32 by 50 feet in size; to have a stone basement, hardwood interior, and mantels, gas and electric fixtures, laundry fixtures, heating, etc.

Architects Fry & Cunningham: For M. Travis, a two-story store and flat building, 40 by 40 feet in size; to be erected at West Forty-second street near Twenty-fifth street; will put in all the modern plumbing, gas fixtures, etc. Also for A. B. Camp, a large number of two-story and basement residences, to be erected at Sixty-ninth street and Calumet avenue; they will contain seven and eight rooms each, and be fitted up with all the modern sanitary plumbing, partly hardwood finish, have mantels, gas fixtures, furnaces, etc.

Architects Schroeder & Koster: For M. Baumgarten, a three-story and basement flat building, 22 by 68 feet in size; to be erected at 40 Alexander street; it will have a front of pressed brick, with stone trimmings, all the modern plumbing, gas fixtures, mantels, furnaces, etc.

Architects Ruehl & Gatterdam: For C. F. Neuffer, a two-story and basement flat building, 24 by 62 feet in size; to be erected at Millard avenue near Twelfth street; it will have a stone front, the sanitary plumbing, mantels, gas fixtures, laundries, etc. For John Boland, a three-story and basement store and flat building, 22 by 78 feet in size; to be erected at Twenty-second street near Paulina; it will have a buff Bedford stone front, all the modern plumbing, mantels, gas fixtures, etc. For M. Springer, a three-story and basement flat building, 22 by 57 feet in size; to be erected near Douglas Park; to have a stone front, mantels, gas fixtures, heating, etc. For M. Busch, a three-story

and basement store and flat building, 60 by 66 feet in size; to be erected at Flournoy street and Kedzie avenue; it will have a handsome rock-faced buff Bedford stone front, and pressed brick, with stone trimmings on the side, all the sanitary improvements, gas and electric fixtures, mantels, etc.

Architect H. M. Hansen: For Messrs. Lystad & Anderson, a four-story apartment house, 48 by 75 feet in size; to be erected at Division street near Clybourn avenue; it will be of Roman pressed brick and stone front, have all the sanitary plumbing, gas fixtures, marble and tile work, etc.

Architect Frederick Ahlschlager: For Joseph Stein, a four-story and basement apartment house, 50 by 75 feet in size; to be erected at Michigan avenue between Fifty-sixth and Fifty-seventh streets; it will have a handsome buff Bedford stone front, hardwood finish, mantle, gas and electric fixtures, all the modern sanitary arrangements, laundry fixtures, heating, electric bells, speaking tubes, etc.

Architect George W. Maher: For A. B. Towers, a two-story residence; to be erected at Newport avenue, Lake View; it will be of boulders and frame, have hardwood finish, etc. For E. M. Higgins, a two-story, basement and attic residence, 36 by 55 feet in size; to be erected at Edgewater; it will be of pressed brick first story, and tile second. For J. MacMeans, a two-story, basement and attic residence, 30 by 47 feet in size; to be erected at Edgewater; to be of frame and boulders, have hardwood interior, electric light and hot-water heating.

Architect W. H. Milner: For M. M. Brown, nineteen three-story flats, 20 by 68 feet in size each; to be erected at the corner of Forty-eighth street and Calumet avenue; they will have stone fronts, hardwood finish, mantels, gas fixtures, heating, etc.

Architect A. F. Hussauder: For Messrs. Blum & Blum, a four-story and basement store and apartment house, 140 by 100 feet in size; to be erected at Halsted street and Waveland avenue; all stone fronts, oak interior finish, the modern plumbing, heating, etc.

Architect W. G. Barfield: Making plans for a Congregational church, 68 by 44 feet in size; to be erected at Western Springs, Illinois; to be of frame with stone basement, have gas and electric fixtures, furnace, etc.

Architects Flanders & Zimmerman: For George A. H. Scott, a six-story apartment house, 46 by 88 feet in size; to be erected at 1323 to 1325 Michigan avenue; the front will be of pressed brick and stone; elevators, steam heating, electric light, etc. For H. Veeder, a two-story and basement residence, 25 by 70 feet in size; to be erected at Forty-eighth street and Vincennes avenue; to be of Roman pressed brick and stone front, have electric light, hot-water heating, etc. Also made plans for Masonic Orphans' Home addition, 45 by 100 feet in size; to be erected at the northwest corner of Sheldon street and Carroll avenue; to be of stone front, have hardwood finish, the modern sanitary improvements, electric light, steam heating, etc.

Cincinnati, Ohio.—Reported by Lawrence Mendenhall: Cincinnati Architectural Club have organized a class to draw the "orders" in charge of Mr. M. Heister. Also have arranged for a series of lectures on "Architectural History," and another on "History of Ornament and Decoration." These lectures will be prepared by the members, there being about twenty subjects to each series. The club is quite prosperous and is preparing for hard work during the winter.

Architects S. Hannaford & Sons report the following: For J. Stark Wayne (care Wayne & Ratterman), Cincinnati, a flat building; materials: pressed brick and stone, asphalt roof, gas, plumbing, grates, mantels, etc.; cost, \$15,000.

Architects Crapsey & Brown report the following: A city hall at Parkersburg, West Virginia; materials: stone, tile roof, steam heat, elevators, stained glass, gas, plumbing, furniture, tiling, etc.; size 45 by 170 feet, three stories high; cost \$50,000. Mortuary chapel at Waynesville, Ohio; materials: stone, slate roof, hardwood, grates, mantels, stained glass, etc.; also for the same place and parties, a keeper's house; size of chapel, 30 by 40 feet; size of house, 35 by 34 feet; two stories; cost of both, \$10,000.

Architects Dittoe & Wisenall report: For Mrs. Minnie Schultz, Covington, Kentucky, a residence; materials: pressed brick, slate roof, furnace, grates, mantels, stained glass, gas, plumbing, etc.; cost not given. For Dr. A. B. Thrasher, Cincinnati, a flat building, three stories high; materials: brick, slate roof, furnace, grates, mantels, gas, plumbing, blinds, electric bells, etc.; cost not given.

Architect Gustave W. Drach reports: For Mrs. Barbara Doppler, Clifton, Cincinnati, Ohio, a residence; materials: pressed brick front, slate roof, grates, mantels, gas, plumbing, etc.; size, 21 feet 6 inches by 61 feet 6 inches; cost, \$4,000.

Architects Nash & Plympton report as follows: Residence for William A. Goodrain, Cincinnati; materials: Roman brick, slate roof, furnace, stained glass, etc.; cost, \$15,000. Residence for F. J. Chamberlain, Norwood, Ohio; materials: frame and plaster, furnace, stained glass, grate, mantels, etc.; cost, \$4,000. Residence for C. E. Sorin (care Sorin & Gibson Printing Company), Cincinnati; materials: frame and shingles, furnace, grates, mantels, gas, plumbing, etc.; cost, \$3,500.

Architect S. S. Godley reports: For J. & A. Freiberg, a brick double residence; materials: pressed brick, furnace, slate roof, stained glass, grates, mantels, gas, plumbing, etc.; cost not stated. Also for the Charles Fleischman Company, a warehouse, seven stories, 40 by 80 feet; malthouse, 40 by 80 feet, and a mashhouse; all built with latest improvements; cost not stated.

Architect Jacob J. Rueckert has prepared plans for building of May, Stern & Co., Cincinnati; materials: pressed brick and iron, steam heat, elevators, plate glass, tin roof; size, 46 by 90 feet, seven stories high; cost not stated.

Cleveland, Ohio.—Architects Coburn & Barnum have just let contracts for a brick and frame residence for George B. Christian, to be built on Euclid avenue near Ingleside avenue; pressed brick first story, slate roof, plumbing, wood mantels and hardwood finish; cost \$10,000.

Architect W. D. Benes has under process of construction a frame residence for Phillip Ziska, on Genessee street near Hough avenue, all modern improvements, mantels, plumbing, etc.

Plans have been prepared for a double frame residence in the office of Architect A. Kohler, to be built on Cedar avenue, for George Evans; cost \$6,000.

Architect Charles Cole is completing a \$6,500 frame residence, in East Cleveland, for C. C. Hills. A \$16,000 block for C. A. Cook, on Detroit street, is nearing completion. Cole & Williams are the architects. (The firm name was formerly Cole & Williams, but the partnership has been dissolved.)

Architect E. E. Smith has a \$7,000 frame residence for Charles Everett, on East Madison avenue; slate roof, furnace, plumbing, electric bells and lights and hardwood finish.

Architect J. W. Russell reports a frame residence for Mr. Fiskinger, at Ashtabula, Ohio; slate roof, plate and stained glass, electric bells and wired for lights, hardwood finish and hot-water heat; cost \$6,000. For P. F. Good & Sons, at Ashtabula, Ohio, he has a three-story brick block, to be used for stores, offices and lodge hall; red pressed brick front and side, gravel roof, plate glass, hot-water heat, electric lights; size 43 by 70 feet; cost \$8,000.

Architect A. H. Granger reports a frame and shingle residence, in the Colonial style, on North Logau avenue, for Mr. Frank E. Abbott; 45 by 42 feet in size, hardwood floors, white enamel finish, plumbing, mantels and plate and stained glass; cost \$7,000. For himself he is building a \$10,000 brick and stone residence in the modern Gothic style; 54 by 40 feet in size; hardwood; brick, wood and stone mantels, electric bells and lights, plumbing, plate and stained glass and everything modern.

Architect S. R. Badgley reports a stone chapel building for the Glenwood M. E. church at Buffalo, New York; 70 by 80 feet in size, slate roof, stained glass, steam heat; seating capacity of 850; cost \$20,000.

Architects French & La Chance report a M. E. church at Collinwood, Ohio; brick and stone, slate roof; 64 by 96 feet in size; furnace heat; seating capacity 700; stained glass; Rev. D. O. King, pastor; cost \$25,000. For D. O. Lear, a frame residence, at Sandusky, Ohio; slate roof, hardwood, plumbing, furnace heat, wired for electric bells and lights; cost \$6,800.

Denver, Colo.—Architect J. J. Huddart: For Mrs. N. E. Casper, a two-story brick residence with stable; size 40 by 50 feet; cost \$5,000.

Architects Edbrooke & Co.: For William Geddis, a two-story dwelling; size 30 by 47 feet; cost \$5,000.

Architect F. C. Eberley: For John Good, alterations to business block; cost \$5,000.

Architect P. H. Reed: For Dr. P. T. Smith, a two-story residence; size 38 by 42 feet; cost \$7,000.

There is a brightening of the condition here and work appears better than for over a year.

Detroit, Mich.—Architects Malcombson & Higginbotham: The Verona apartments, a block of sixteen separate apartments; pressed brick and terra cotta with sandstone trimmings; to be erected corner of Cass and Ferry avenues; size 112 by 116 feet; cost \$85,000.

Architects M. L. Smith & Son: For David Whitney, Jr., remodeling business building; size 60 by 85 feet; cost \$18,500. For Oliver Goldsmith, a house on Jefferson avenue near Hastings; to cost \$6,000.

Architects Donaldson & Meier: For George Hanley, a two-story double residence; pressed brick; cost \$8,500.

Architect George Meyers: For Harry Chefman, a two-and-one-half-story pressed brick residence on Frederick street near Brush street; cost \$9,000.

Architects A. C. Varney & Co.: For James L. Dobbin, Marshall, Michigan, a two-and-one-half-story frame residence; cost \$6,500. For James Walker & Son, a four-story warehouse; size 50 by 80 feet; to be built on Larned street near Cass street; cost \$10,000. For Mrs. C. E. Hard, a two-and-one-half-story brick residence; pressed brick and stone trimmings; cost \$5,500.

Pittsburgh, Pa.—Architects Riddle & Kiern: For the Bethany Evangelical Lutheran Church, a stone church building; to cost \$25,000.

Architect S. Munnsh: For Baner Bros, a three-story store and apartment building; size, 30 by 60 feet; stone and brick; cost, \$15,000.

Rochester, N. Y.—Architect Orlando K. Foote has prepared plans for a hotel to be built at Gouverneur, N. Y.; 46 by 175 feet, five stories high; steam and electric heating, electric lighting, fifty-five bathrooms with modern plumbing, marble floors in office, lobby and reading-rooms; cost, about \$80,000.

Architects Block, Barnes & Orchard have prepared plans for residence of Dr. G. C. Clarke, at Niagara Falls, N. Y., to be built of pressed brick, finished in hardwood; cost, \$12,000. Also barn, built of pressed brick, to cost \$3,000.

St. Louis, Mo.—The Y. M. C. A. building by architects Tully & Clark, design for which was shown in our July number, is now going ahead. The building will be four stories, 102 by 169 feet; brick with stone trimmings; cost, \$125,000.

Architects Kirchner & Kirchner: For John H. Spinning, a three-story brick warehouse; size, 125 by 1,125 feet; cost, \$20,000.

Architects Grable & Weber: For Mrs. Pauline Sayers, a two-and-one-half-story brick residence; size, 43 by 49 feet; all modern improvements; cost, \$12,000.

Architect A. M. Baker: For C. W. McFarland, two two-and-one-half-story brick and stone houses; size, 42 by 45 feet; cost, \$20,000. Also a two-story flat building; size, 60 by 66 feet; cost, \$12,000. For Edward Butler, a one-story store building; size, 61 by 73 feet; cost, \$8,000.

St. Paul, Minn.—Architect Cass Gilbert: For the St. Clement Memorial Episcopal Church, a two-story church building; to cost \$25,000.

Architect C. H. Johnson: For Loven & Anderson, a three-story brick flat building; to cost \$20,000.

THE NEW YORK LIFE BUILDING AT CHICAGO.

THE illustrations in this number of the New York Life Insurance Company's new building at La Salle and Monroe streets, Chicago, afford a good idea of the general design and special detail of this typical high office structure. The general style of architecture is classic renaissance—the Ionic type. The first story, or ground floor, has a central entrance on both streets into the stairway and elevator halls. While from the nature of the building ornament was necessarily subordinated to utility, yet the architects, Messrs. W. L. B. Jenney and W. B. Mundie, have imparted to the structure a very substantial degree of ornament, especially at the entrances and on the lower floors.

The New York Life Building occupies a site of 80 feet on La Salle street by 141 feet on Monroe street, and is twelve stories high. It is built of steel encased in granite and terra cotta. The first, second and third stories are of dressed granite, furnished by the Hallowell Granite Company, Chicago, George F. Bodwell, agent, with granite from their celebrated white granite quarries, located at Hallowell, Maine. This company have over three hundred men now employed in the dressing of granite to be furnished for several large buildings in different parts of the country, a prominent example being that for the American Security Company, New York city, for which Bruce Price is the architect. This building is twenty stories in height, 85 feet square and 320 feet high, and granite is used for nearly all of the four sides the entire height, and is to be elaborately carved. Above the third story the building is faced with terra cotta. It is only within a few years that the entire facing of a building was placed in the hands of the terra cotta manufacturers, but so fully equipped for contracts of any size or importance is the Northwestern Terra Cotta Company, of Chicago, who executed this work, that it is due to their enterprise as much as the demands of the architects that pressed brick has found a competitor more serious even than the stone and marble contractors in the artistic material turned out by the Northwestern Terra Cotta Company, and which is being used as a facing in the most prominent buildings now being designed. The alley and court are faced with enameled brick.

The first, or ground floor and the second, or bank floor, and the entire hall, including walls, ceiling and staircases, are finished in marble. The entrance ways and halls on ground floor are paved with handsome mosaic; the other halls with marble. The second floor is finished in mahogany, the other floors in oak. Above the bank floor are ten stories arranged for offices. In each story there may be twelve offices with street fronts, two with court and alley fronts, and three with court fronts only. Five passenger elevators located near the center of the building, and a freight elevator communicating with the alley, run to the attic. The basement has a rentable area of 7,000 square feet. The remaining portion of the basement is devoted to boilers, pumps, elevator machinery, ventilating machinery and electric light plant. The latter plant is one of the most complete ever placed in an office building, and was installed by the Louis K. Comstock Company, of Chicago, who have executed similar contracts in a large number of the latest office buildings in Chicago and elsewhere, as well as private residences, theaters, etc.

The architects have devoted special and unusual care to provide adequate ventilation for this building, and fans, blowers and

other mechanical appliances were installed by the Exhaust Ventilator Company, of The Rookery, for exhausting foul air from all parts of the basement, including kitchen and restaurant, and also from all toilet rooms throughout on the different stories, as well as from the corridors. At the same time a large volume of air, warm or cool as desired, is forced into the entrance hall and all rooms on the two lower stories so as to afford an abundant air supply for these desirable quarters. It is hardly necessary to state that all the appointments of this building are, like that of ventilation, of the highest and most complete type. The cost was about \$800,000.

Work on the foundation of the New York Life Building was commenced in the latter part of July, 1893, and eight months later the building was ready for occupancy. This rapid progress was due to the energy and great resources of the general contractors, the George A. Fuller Company, and in this they were favored by the form of construction known as Chicago, or steel skeleton construction, in which all the loads of exterior and interior walls, partitions and floors are carried independently, story by story, on steel columns.

In specifying the strength of the steel frame, the weight of the live load on the first floor was calculated at 110 pounds per square foot, and that of the floors above at 90 pounds per square foot, the roof figuring 70 pounds. To these figures was added 20 pounds per square foot of floor area for weight of partitions, and special computation was made for the support of all vaults, tanks, etc. The weights of curtain walls, piers and mullions were computed per lineal foot from the wall sections.

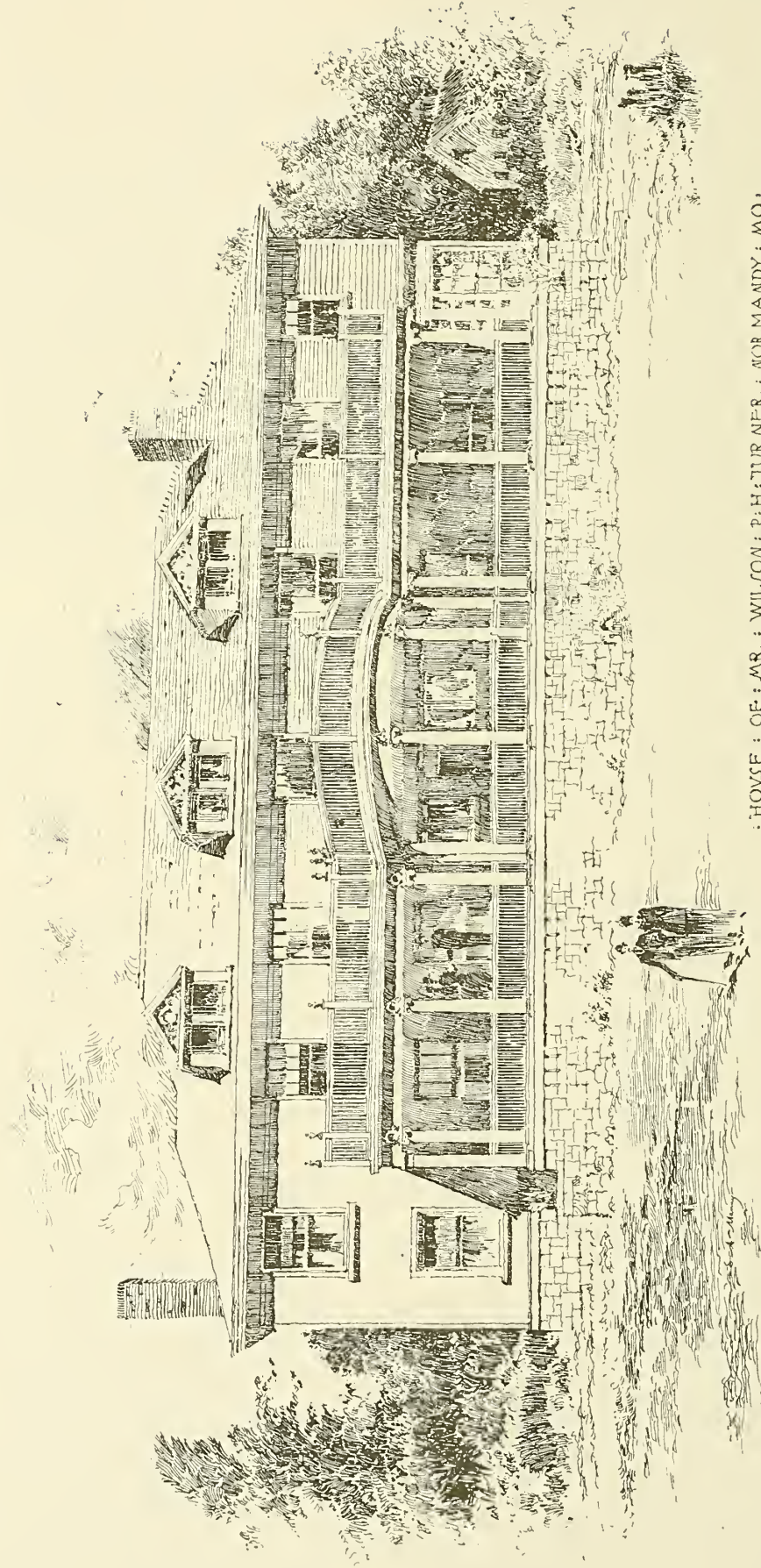
The snow load was taken at 40 pounds to the square foot of roof; the wind load at 30 pounds per square foot on the exposed vertical surface of the building. Double the maximum live loads of elevators was taken to allow for sudden shocks. Other live loads were computed at from 70 to 200 pounds per foot, according to location. For instance, 125 pounds was allowed for floor beams and 110 pounds for girders of first floor, while 70 and 60 pounds respectively were allowed for beams and girders of the second to thirteenth floors, inclusive. The maximum live weight of 200 pounds was allowed for the floor beams of the sidewalk and alley pavement.

In framing, 10 and 12-inch I beams and 15-inch girders were used. The columns were built up of two channels, connected either by side plates or lattice bars, and were spaced, with few exceptions, 15 feet, 5½ inches between centers. Ten-inch channels were used in all cases, the various necessary cross-section areas being obtained by the different weights of the channels and the different thicknesses of side-plates. Thus the side-plates of the interior columns were 12 inches in width, those of the exterior columns 21 inches, and these columns were placed with the longer axis parallel to the face of the building.

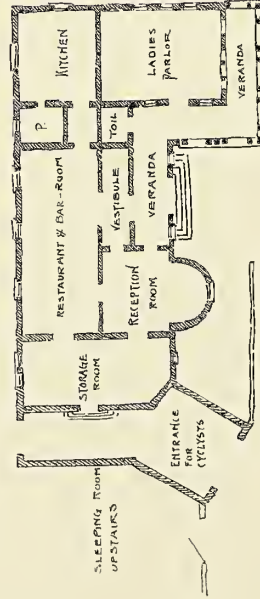
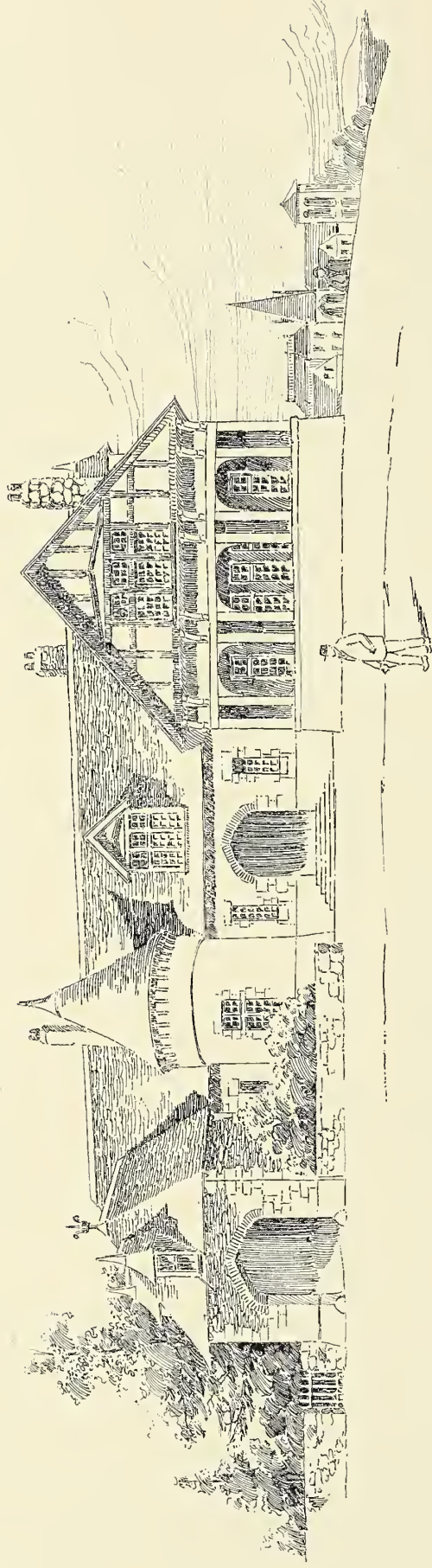
The granite piers carry themselves and the curtain walls from the foundations up to the third floor line. Above this the terra cotta rests on the top plates of the exterior columns, which are of special shape to carry the piers at each story. In general the columns are continuous through one story only, the top of each column ending in a horizontal top plate of ¾-inch steel, which is riveted to the column by horizontal angles, and on which the column above rests. The upper column also is connected to the lower by horizontal angles. The basement column rest on cast-iron stools twelve inches high and three feet square, the column being bolted to the stool. These in turn rest on the foundation beams, which are so arranged as to withstand any pressure up to 13,000 pounds to the square inch.

The building being set on compressible soil, that with a load of 3,500 pounds per square foot, will compress about three inches, it becomes necessary, to determine the dead loads quite accurately, to secure uniform unit loads, and hence equal settlements. As the live loads are small in comparison to the dead loads during the period of construction, when most of the settlement takes place, they are disregarded in determining the base area of the footings. The building is set 4½ inches above its normal grade. The greater part of the settlement—2½ to 3 inches—will be obtained by the time the building is ready for occupancy. After that the settlement may amount to one inch in the next twelve months, and will then cease, as long as the load is quiescent.

The problem of wind bracing is important. The action of the wind on the building was assumed to be a uniform force of thirty pounds per square foot on the whole of any one side above the fifth floor, that being the average height of the surrounding buildings. The bending moments and shears resulting from the action of the wind are resisted, First: By the rigid connections especially designed between the outside columns and the beams and channels between them by these channels, beams and columns themselves, and by the party wall to which the steel frame is connected. Second: By the generally rigid connections between all the columns and the beams attached to them. Third: By the partitions, piers and floor arches, partitions and piers taking up a percentage of the shear, and the stiff floor system distributing the shear at that plane over the column system below it. At every joint formed by the outside columns and beams the bending moments from wind action were carefully computed, and the connection between beams and columns was designed accordingly. As a matter of course the maximum resultant action of dead, live and wind loads was considered. The special connections between outside columns and beams were designed to resist the entire wind pressure of thirty pounds per square foot; any excess would be provided for by the interior columns and beams, partitions and floor arches, etc.



HOUSE OF MR. WILSON: P. H. TURNER: NORMANDY: MO.
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CHICAGO SKETCH CLUB COMPETITION—AWARDED FIRST PLACE.

SUBMITTED BY JOHN JOHNSON.

"Rural Sketches"

The old "Gibbs Tavern"
(Anton: Mass.)



G. H. Adams

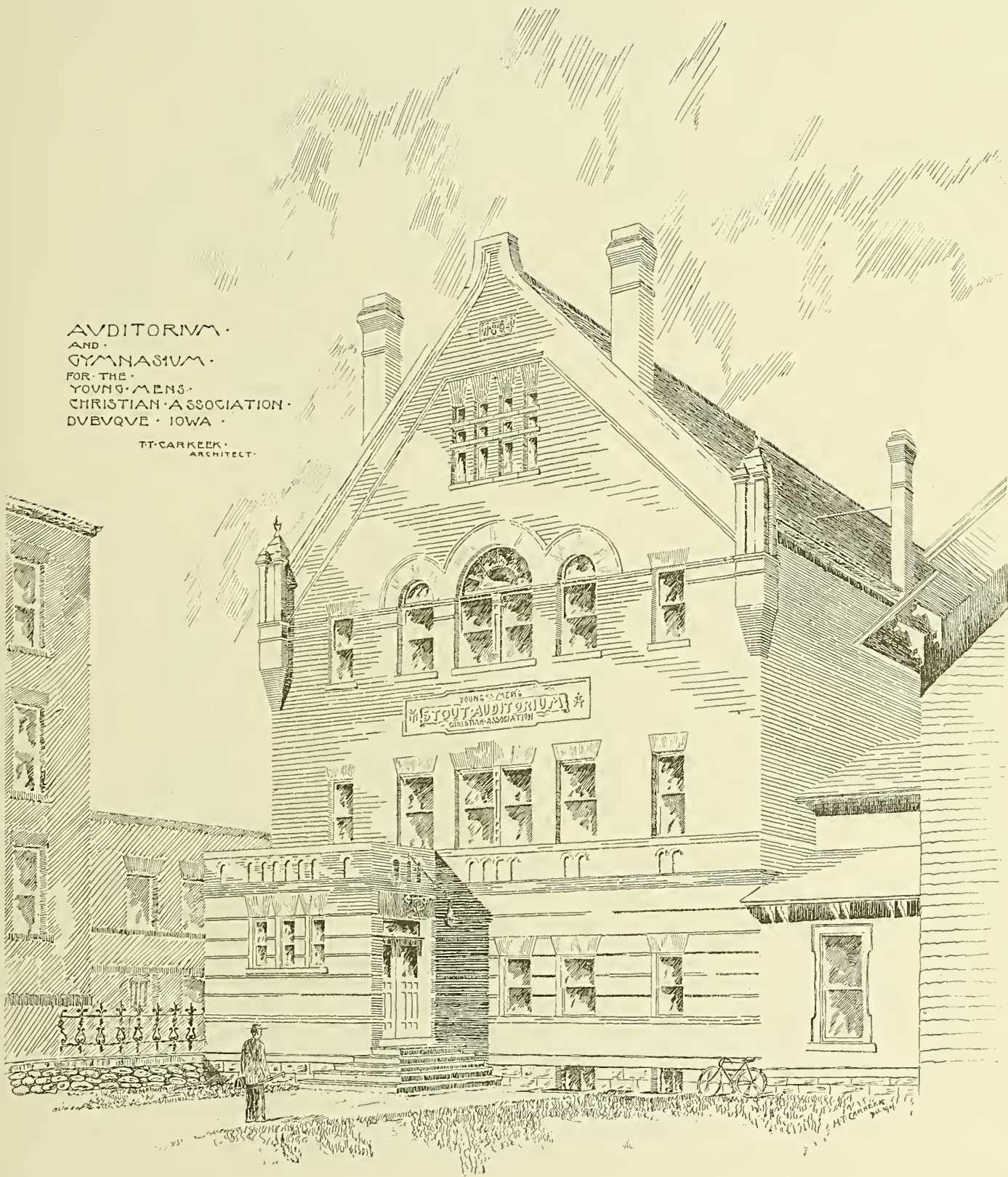


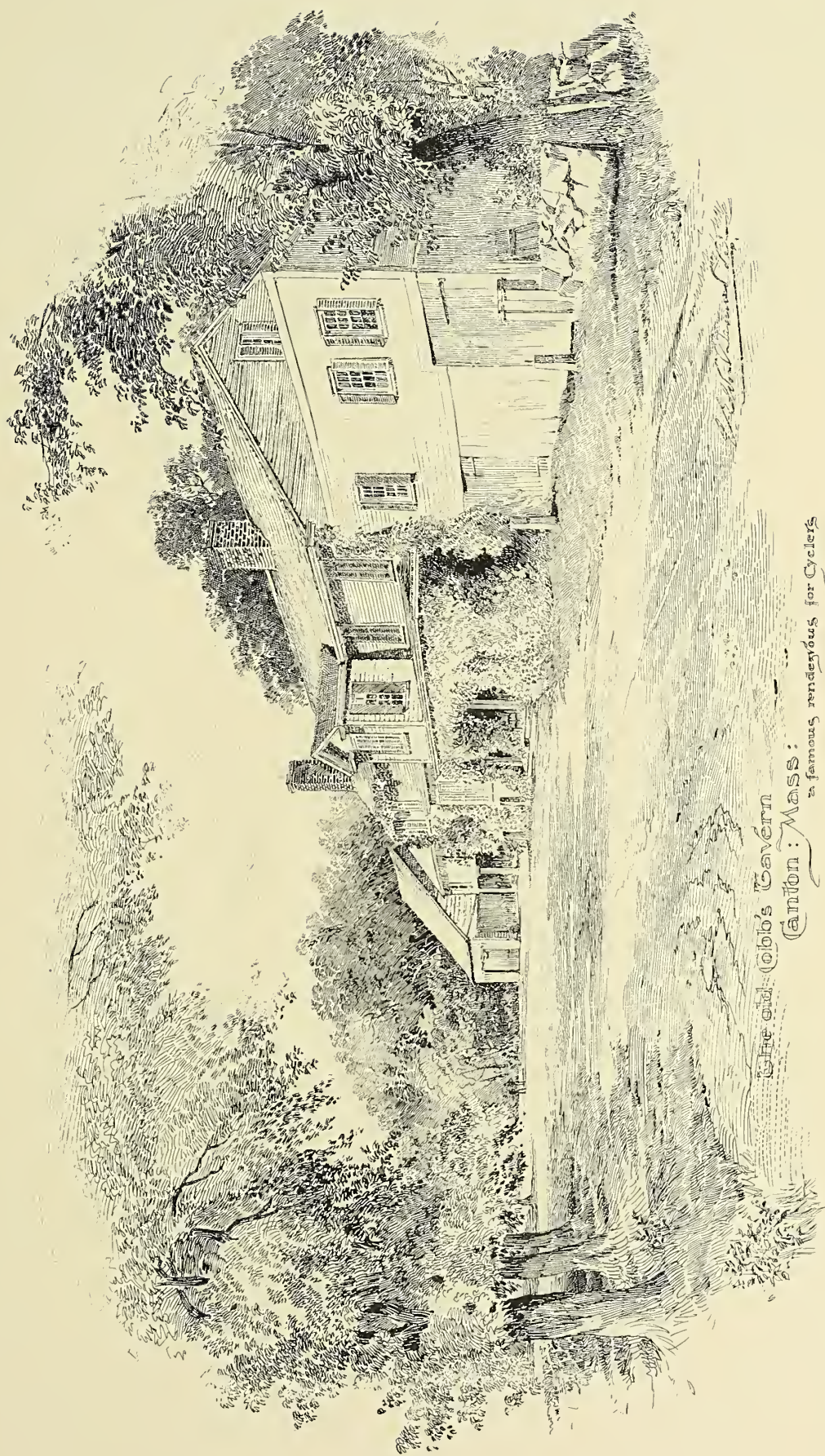
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FLANDERS & ZIMMERMAN, ARCHITECTS.

AUDITORIUM
AND
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FOR THE
YOUNG MEN'S
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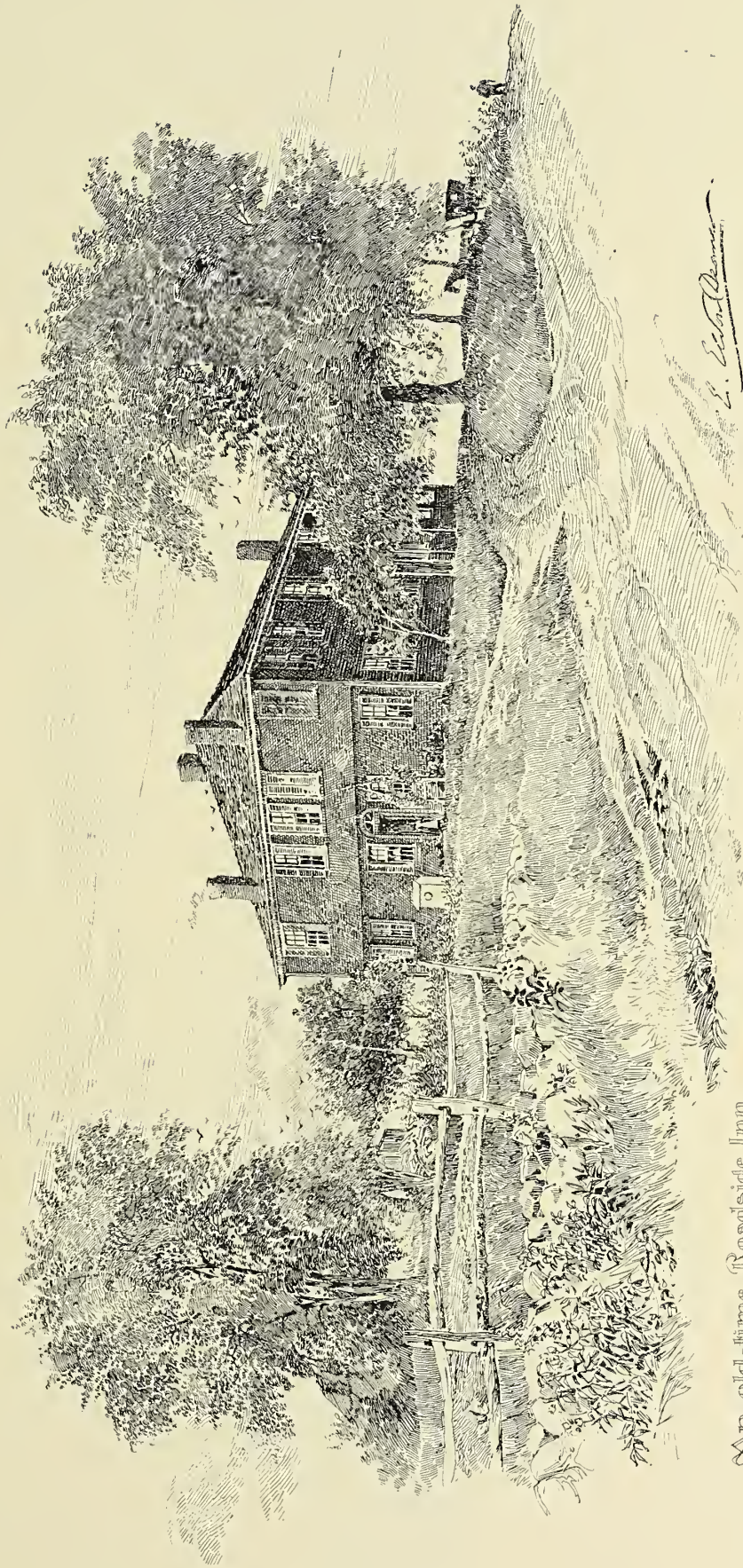


White Old Cobb's Tavern

(Antion: Mass.)

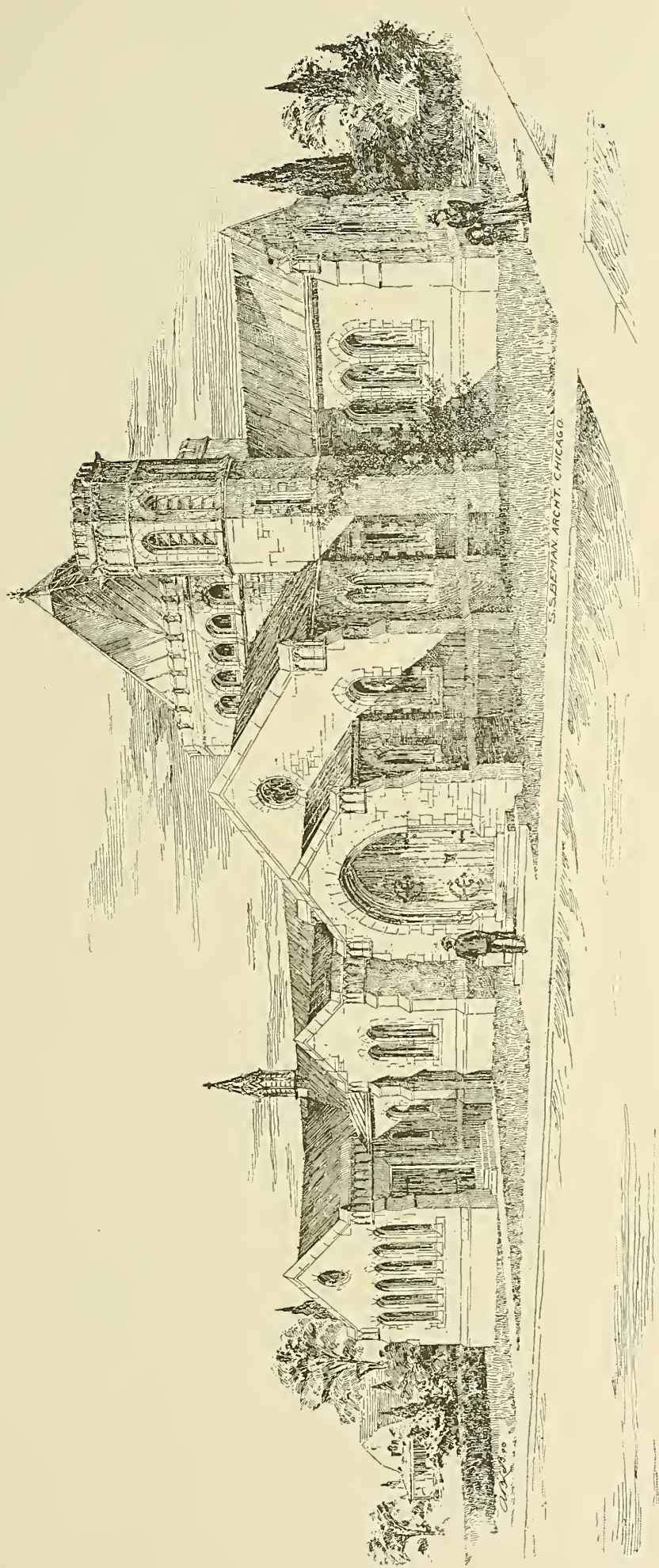
a famous rendezvous for Cyclers

Rural Sketches



An old-time Roadside Inn
East Sharon, Mass.

L. Eastman

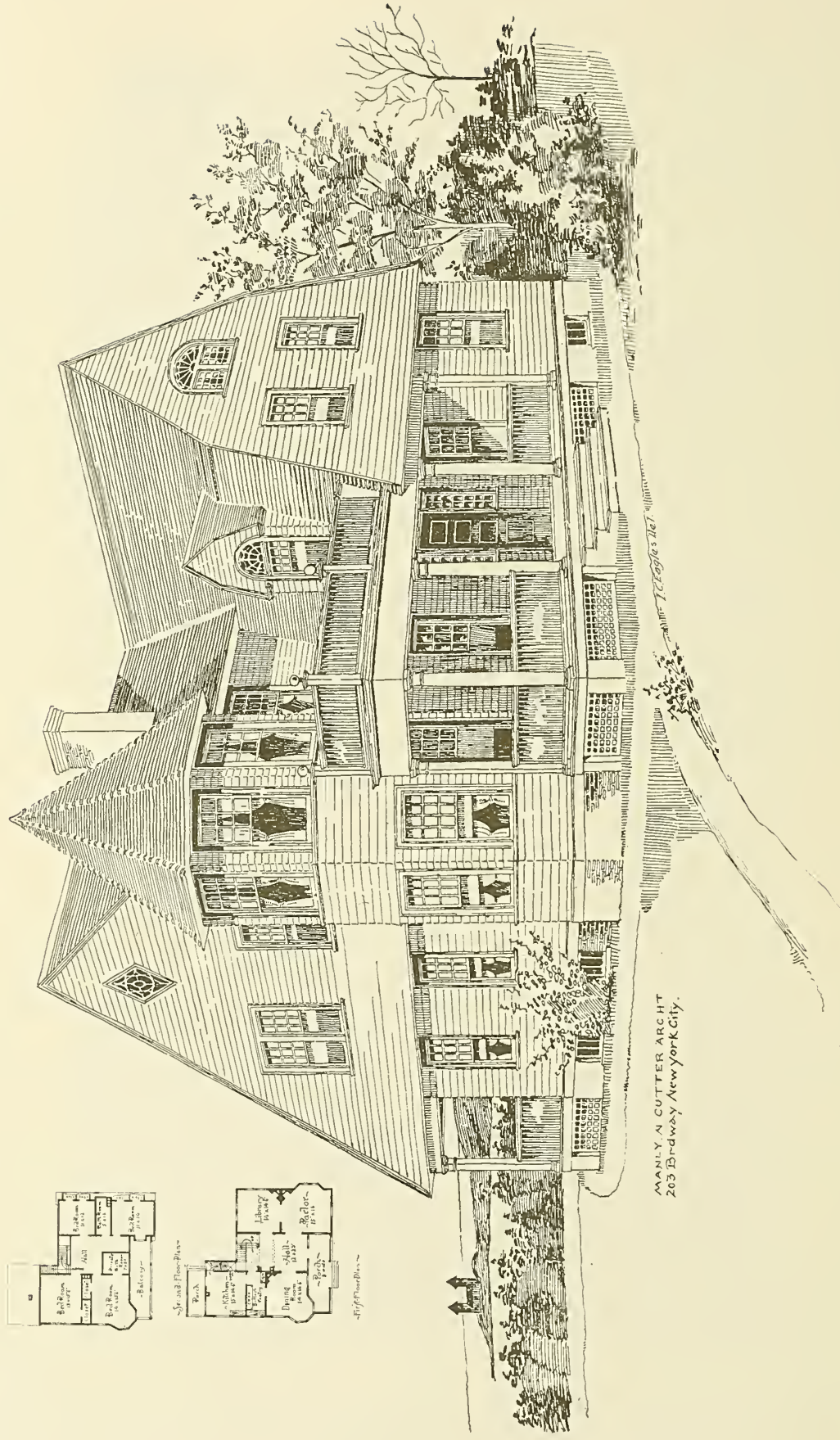


ALBION MEMORIAL UNIVERSALIST CHURCH, BUILT FOR GEO. M. PULLMAN, AT ALBION, N. Y.
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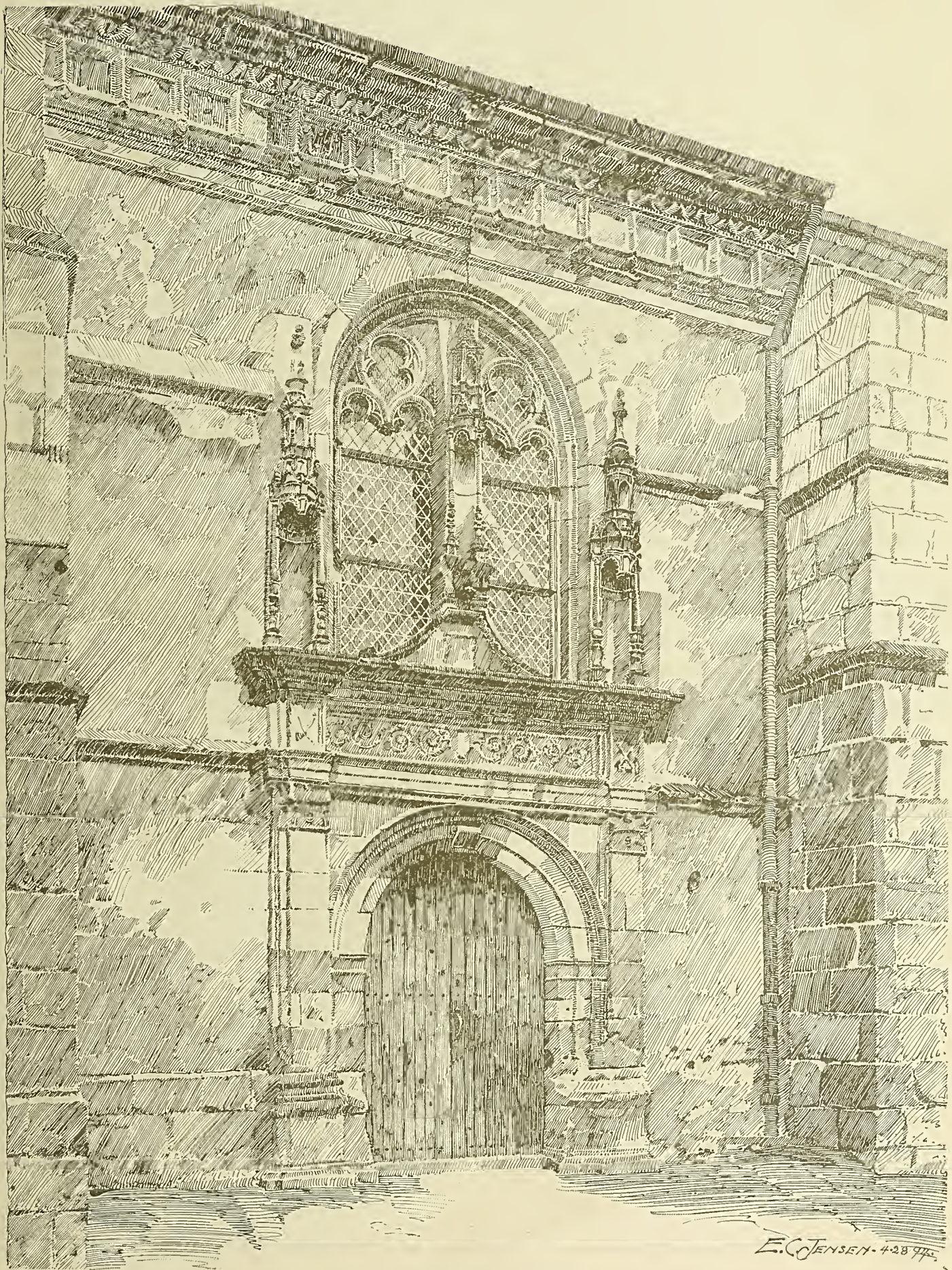




RESIDENCE OF MRS. J. PRICE, CINCINNATI, OHIO.
W. W. FRANKLIN, ARCHITECT.



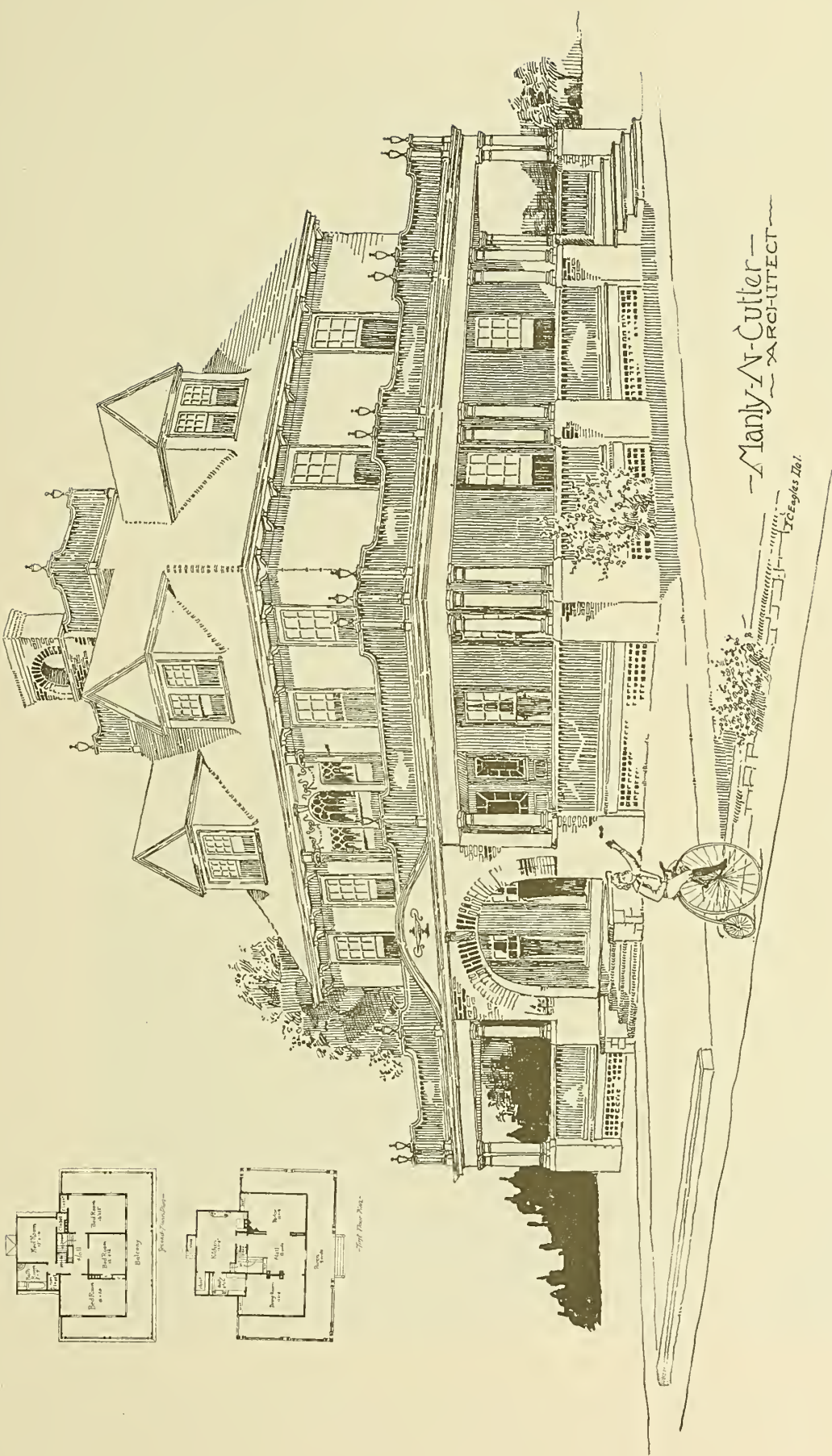
ST. TRINITE - FALAISE.



DOOR - ONZAIN, FRANCE.



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Manly N. Cutter -
ARCHITECT

Tr Engles Del.



"THE COMMERCE" BUILDING, LOUISVILLE, KENTUCKY.

C. A. CURTIN, ARCHITECT.



INLAND ARCHITECT PRESS.

HOUSES FOR T. G. BUTLIN, CHICAGO.

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Twenty-Eighth Annual Convention, A. I. A. The twenty-eighth annual convention of the American Institute of Architects opened on October 15, in the hall of the Architectural League of New York, in New York city, and continued through three days and evenings of almost continuous sessions. The meeting was most representative though smaller in numbers than for several years. While there were but five architects from Chicago, ten from St. Louis and about twice that number from the state of Ohio, these were representative. Duluth sent one, as did Nashville, but none from the far West were present. The sessions were remarkable for the many surprises in the way of papers read and sentiments expressed. For the first time in history a report came from the Committee on Education. In fact, this committee had become a standing joke because it was always called for and never heard from. Last year Mr. Henry Van Brunt was made its chairman, and that gentleman submitted a report which, in power, force and clear exposition of the educational needs of the future, was superb, creating a sensation such as has not been experienced in an Institute convention since the remarkable report received some years ago from the then chairman of the committee upon professional ethics. Its influence will place architectural education upon a new and better plane and its precepts will be ranked among architectural classics. The papers read were also remarkable for their clear, practical discussion of the several subjects, and one so strongly seconded that of Mr. Van Brunt in the direction of a better educational system that it seemed hardly possible that Mr. Sullivan could have thought so perfectly in line with Mr. Van Brunt without some previous conversation, a similarity of thought, however, which was purely accidental. In the much agitated matter of relationship of Chapters to the Institute but little was accomplished, though after lengthy discussion the by-laws were amended. The subject is still as unsettled as ever, and will be until some broad scheme can be evolved by which all interests can be served and all architects united. When a committee composed of not only the best minds but from among those of the broadest experience in the operation of state and local Chapters in the different states is appointed and has given the subject the fullest consideration, it is only possible that this question will reach a satisfactory solution. It was thought that after continuous sessions from ten o'clock in the morning until five o'clock in the afternoon it would be difficult to obtain a full attendance of members at the evening sessions, but these were, if possible, the more fully attended and the deepest interest was manifested in the various papers read and the discussions which followed. In the discussion of modern high buildings, which was led by George B. Post, we were pleased to hear Mr. Blackall commend the massive effect of the Monadnock building at Chicago as an example of what a high building should be, as it is a building the principle of which has often been condemned, but never, we think, logically, as it is certain that the artistic value of high buildings is in their mass and not in their detail. The twenty-eighth convention of the American Institute of Architects will be remembered as one most fruitful of good results.

EMOTIONAL ARCHITECTURE AS COMPARED WITH CLASSICAL.

BY LOUIS H. SULLIVAN, F. A. I. A.

HOW strange it seems that education, in practice, so often means suppression; that instead of leading the mind outward to the light of day it crowds things in upon it that darken and weary it. Yet evidently the true object of education, now as ever, is to develop the capabilities of the head and of the heart. He therefore who possesses a sound head and a responsive heart is worthy of enlightened guidance, is amenable to educational influence.

Let us now imagine a simple youth so equipped, so gifted, I am almost forced to say, an inborn poet, untaught, unschooled, and living an outdoor life. So familiarly has he fared with sunshine and air, and the living things, that they seem, as indeed they are, everyday and common to him. Yet the mere community of their lives, the similarity in the experiences of the boy, the plants and the animals in that native, simple, naïf, unsullied state that we who are perhaps unduly artificial call by contrast natural — this state has drawn him very near to them all.

Breathing the same air as they, maturing in the same glowing sunshine, sustained by the same satisfying moisture, he and they expand side by side, defining themselves intimately to each other; and the boy, growing always, after a while feels himself to be not only with them but of them. His is a brotherhood with the trees; a wistful eye he softens to the flowers; he has a comely friendship for them all.

He knows that the young leaves love the dew; that the tendril reaches quietly for the twig it may cling to. He has seen the fern unfolding its brown spiral to become an emerald green and regular. He has splashed knee-deep in the marsh; he knows the dank fragrance very well; he parts his friends the rushes to make a way for his eyes that seek what they may devour — his eyes with a keen and endless appetite. His hands touch the warmish water — sniffing the active air, he lives as only a boy can live — his lively sensibilities always in physical touch with his surroundings, in the full and irrepressible enjoyment of his five senses.

These five senses, and they only, stand between him and nature. It is they that interpret her affection; and the ready language that they deal in keeps him in such a natural sympathy, so well in touch, so intimately at ease, that he does not for a moment realize that he is then and there doing that which education, so-called, once having made inoperative in him, he will in after years, poet though he be, reacquire only with the utmost difficulty the power to do.

This something that he is doing, and the physical and psychic state that it implies we call *Touch*: Meaning not the touch of the painter, not the touch of the sculptor, not the mechanical and technical touch of the fingers only, nor quite their negligent contact with things, but the exquisite touch of the sensibilities, the warm physical touch of the body, the touch of a sound head and a responsive heart, the touch of the native one, the poet, out of doors, in spontaneous communion with nature.

So has our youngster started easily and naturally, all alone without premeditation or guidance, upon the road to knowledge, to leadership and power. For this sensibility, this healthfulness, this touch, this directness of apprehension, this natural clearness of eyesight that is his is the first essential prerequisite in the early analytical strivings of the mind: It is that perfect concrete analysis by the senses and the sympathies which serves as a basis for the abstract analysis of the intellect.

Let us not forget our little man, for he is to companion me in spirit through this discourse. I believe he exists somewhere, has in his breast the true architectural afflatus, and will some day come forth the Messiah of our art. For he has that early and sure understanding by the eyes that will survive the future uncertainties of the brain. He has that exalted animal sense which alone can discern the pathway to hidden knowledge, that acute and instant scent in matters objective leading to matters subjective that we call *Intuition*.

This physical endowment, this sense of touch is, decidedly, wherever found, a generous gift of nature; but it is potent for results in so far only as it is urged into sustained and decisive action by a certain appetite or desire.

This desire, this insistence, this urgency which will not be denied; this uncomfortable hunger, this uneasy searching, this profound discontent, oh! so deep; this cry for more, this appetite, this yearning, ever unsatisfied, is not of the body alone but of the soul, and, always and everywhere, in all times and in all places, high or low, wherever found, it is the dominant characteristic of man's eminence in nature — it is the justification of the eminence of a few men among their fellows.

For appetite, in a state of nature, implies not only a keen desire and a search for the food wanted, but, as well, a rejection of all else, thus insuring a wonderful singleness of purpose, a concentration of action, a definiteness of end in the selection of that nourishment of the faculties which, when assimilated, is to become in turn thought and expression through the agency of a second desire equally great, equally intense, equally insistent, namely, the desire to act. This desire to act we call *Imagination*.

These two great desires, which are in essence the desire to absorb and the desire to emit, the desire to know and the desire to test, the desire to hear and the desire to utter, are the basis not only of

a true and effective education, not only are they the wholesome body and the enchanting voice of art, but they are greater than these, for they are the animating quality of that higher purpose and significance of art that we call poetry.

Now, the desire to act that in due time follows upon nutrition can assert itself tangibly and fully only by means of three agencies, the which, by virtue of its life-giving qualities, this nutritive power has called into being. All three of them must cooperate in turn in order to produce a fully rounded result. They are first, the *Imagination*, which is the very beginning of action because it is a sympathy that lives both in our senses and our intellect — the flash between the past and the future, the middle link in that living chain or sequence leading from nature unto art, and that lies deep down in the emotions and the will. It is this divine faculty which, in an illumined instant, in that supreme moment when ideas are born, reveals the end with the beginning, and liberates, as an offspring of man, that which before had rested, perhaps for untold centuries, dormant but potential in the inmost heart of nature. This is the supreme crisis. This is the summit of the soul, the fertile touch of the spirit, the smile of nature's bounty — the moment of *Inspiration*! All else is from this moment on, a foregone conclusion, an absolute certainty to the master-mind: a task surely but not a doubt.

Second in this trinity comes *Thought*, the faculty that doubts and inquires, that recognizes time and space and the material limitations, that slowly systemizes, that works by small increments and cumulations, that formulates, that concentrates, works, reworks and reviews; that goes slowly, deliberately; that makes very firm and sure, and that eventually arrives at a science of logical statement that shall shape and define the scheme and structure that is to underlie, penetrate and support the form of an art work. It is the hard, the bony structure, it is the tough, tendinous fiber; it may be at times, perhaps, as limber as the lips that move, yet it is never the need of smiling — never the smile.

Third, last, and the winsome one, exuberant in life and movement, copious in speech comes *Expression*, open-armed and free, supple, active, dramatic, changeable, beautifully pensive, persuasive and wonderful. Hers it is to clothe the structure of art with a form of beauty; for she is the perfection of the physical, she is the physical itself, and the uttermost attainment of emotionality. Hers is an infinite tenderness, an adorable and sweet fascination. In her companionship imaginative Thought, long searching, has found its own, and lives anew, immortal, filled with sensibility, graciousness and the warm blood of a fully rounded maturity.

Thus Art comes into Life! Thus Life comes into Art!

And thus, by reason of a process of elaboration and growth, through the natural storage and upbuilding of the products of nutrition, lifting themselves higher and higher into organization, the physical and spiritual experiences of our lives, seeking reproduction, shall find imaginative utterance, in their own image, in a harmonious system of thinking and an equally harmonious method of expressing the thought.

And so it shall come that when our nourishment shall be natural, our imagination therefore fervid, intense and vision-like; when our thinking and our speech shall have become as processes of nature; when, in consequence, from its mysterious abode in visible things, the invisible and infinitely fluent spirit of the universe passing to us shall have made our tongues eloquent, our utterance serene, then, and not till then, shall we possess, individually and as a people, the necessary elements of a great *Style*.

For otherwise and without this unitary impulse our expression, though delicate as a flower, our thinking as abstract as the winds that blow, our imagination as luminous as the dawn, are useless and unavailing to create; they may set forth, they cannot create.

Man, by means of his physical power, his mechanical resources, his mental ingenuity, may set things side by side. A composition, literally so called, will result but not a great art work, not at all an art work, in fact, but merely a more or less refined exhibition of brute force exercised upon helpless materials. It may be as a noise in lessening degrees of offensiveness, it can never become a musical tone. Though it shall have ceased to be vulgar in becoming sophistical, it will remain to the end what it was in the beginning: impotent to inspire, dead, absolutely dead.

It cannot for a moment be doubted that an art work to be alive, to awaken us to its life, to inspire us sooner or later with its purpose, must indeed be animate with a soul, must have been breathed upon by the spirit and must breathe in turn that spirit. It must stand for the actual, vital first-hand experiences of the one who made it and must represent his deep-down impression not only of physical nature but more especially and necessarily his understanding of the out-working of that *Great Spirit* which makes nature so intelligible to us that it ceases to be a phantasm and becomes a sweet, a superb, a convincing *Reality*.

It absolutely must be the determination and the capacity of the artist that his work shall be as real and convincing as is his own life; as suggestive as his own eyesight wakes all things to him; and yet as unreal, as fugitive, as inscrutable, as subjective, as the why and wherefore of the simplest flower that blows.

It is the presence of this unreality that makes the art work real: it is by virtue of this silent subjectivity that the objective voice of an art song becomes sonorous and thrilling.

Unless, therefore, subjectivity permeate an art work, that work cannot aspire to greatness; for whatever of imagination, of thought and of expression it may possess, these as such will remain three separate things — not three phases of one thing.

An artist must necessarily, therefore, remain a more or less educated handworker, a more or less clever sophisticator, a more

*A study in Subjective and Objective, read before the twenty-eighth annual convention of the American Institute of Architects at New York, October 16, 1894.

or less successful framer of compromises, unless, when he was born, there was born with him a hunger for the spiritual; for all other craving avails as naught. Unless, as a child, with that marvelous instinct given only to children he has heard the voice of Nature murmuring in the woodland or afield or seaward, no after hearing can avail to catch this revelation.

And thus it is that subjectivity and objectivity, not as two separate elements but as two complementary and harmonious phases of one impulse, have always constituted and will always constitute the embodied spirit of art.

No phase of human nature can contain greater interest for the student of psychology than the history—natural, political, religious and artistic—of the successive phases for good and for ill of Objectivity and Subjectivity. *They are the two controlling elements in human endeavor.* They have caused in their internecine warfare misery and perturbation. They are ordinarily known and spoken of as the intellectual and the emotional, but they lie deeper, much deeper, than these: they lie in the very heart of nature. Coming into man's being they have been antagonistic because of the fanaticism and one-sidedness of human nature, because of its immobility. Because from the beginning man has been beset by beautiful, by despicable illusions. Because one set of men have believed in what they could see and another set have believed in what they could not see. Because it has too often happened that the man who could see with the outer eye could not see with the inner eye; because the other man, rhapsodizing with the clear insight of faith, had no thought for the things of this world. Neither has believed in the virtue of the other. Neither has inferred from the presence of the other, the necessary existence of a balancing but hidden power. Now and then through the ages they have come twin-born in the bosom of an individual man, upon whose brow the generations have placed the wreath of immortality.

So vast, so overwhelming is the power of a great, a properly balanced subjectivity, so enormously does it draw on the spiritual nutrition and stored up vitality of the world, that, soon sapping this up, and still craving, the man possessed of it, urged by it, goes straight to the unflinching bounty of nature, and there, by virtue of his passionate adoration, passing the portals of the objection, he enters that extraordinary communion that the sacred writers called to "walk with God."

There can be no doubt that the most profound desire that fills the human soul, the most heartfelt hope, is the wish to be at peace with Nature and the Inscrutable Spirit; nor can there be a doubt that the greatest Art Work is that which most nearly typifies a realization of this ardent, patient longing. All efforts of the body, all undertakings of the mind, tend, consciously or unconsciously, toward this consummation, tend toward this final peace: the peace of perfect equilibrium, the repose of absolute unity, the serenity of a complete identification.

When, therefore, turning from this our contemplation we compare the outworking of the vital processes of nature with the so-called creative activity of the average man of education and culture, we wonder at the disparity, we seek its cause.

When, after having with joy observed the quality of identity and singleness that nature imparts to her offspring, when with aroused expectancy, with a glowing sense of the richness, fullness and variety that might and should come from the man's brain with the impulse of nature's fecundity flowing through it, we seek—we are amazed to find in this man's work no such thing.

When we, in place of a fertile unity which we had hoped for, come suddenly upon miscellany and barrenness, we are deeply mortified, we are rudely shocked.

We are dismayed at this: That man, nature's highest product, should alone have gone awry, that with remarkable perversity he should have strayed; that for the simple and obvious he should substitute the factitious, the artificial.

The cause needs not a long searching, it is near at hand. It lies precisely in that much-glorified, much-abused word, "education."

To my view no word in the entire vocabulary of the English language contains so much of pathos, so much of tragedy, as this one pitiful word, "education," for it typifies a fundamental perversity of the human soul, a willful blindness of the mind, a poverty of the heart.

For one brain that education has stimulated and strengthened, it has malformed, stupefied and discouraged thousands. Only the strongest, only the masterful can dominate it, and return to the ownership of their souls.

For it is education's crime that it has removed us from nature. As tender children it took us harshly away with stern words, and the sweet face of our natural mother has faded in the unspeakable past, whence it regards us at times, dimly and flittingly, causing in us uneasy and disturbing emotion.

And thus it is through a brutish and mean system of guidance, through the density of atmosphere that we have breathed that we are not what our successors may easily become, a race filled with spiritual riches in addition to the vast material wealth.

That in place of a happy people, open-eyed children of nature teaming with beautiful impulses, we are a people lost in darkness, groping under a sooty and lurid sky sinister with clouds that shut out the sunshine and the clear blue heavens.

Yet the murky materialism—the fierce objectivity, the fanatical selfishness—of this dark age of ours, in this sense the darkest of all dark ages, is so prodigious, so grotesque, so monstrous, that in its very self it contains the elements of change; from its own

intensity, its own excess, its complex striving, it predetermines the golden age of the world.

The human mind in all countries having gone to the uttermost limit of its own capacity, flushed with its conquests, haughty after its self-assertion upon emerging from the prior dark age, is now nearing a new phase, a phase inherent in the nature and destiny of things.

The human mind, like the silk-worm oppressed with the fullness of its own accumulation, has spun about itself gradually and slowly a cocoon that at last has shut out the light of the world from which it drew the substance of its thread. But this darkness has produced the chrysalis, and we within the darkness feel the beginning of our throes. The inevitable change, after centuries of preparation, is about to begin.

Human development, through a series of vast attractions and perturbations, has now arrived at a materialism so profound, so exalted, as to prove the fittest basis for a coming era of spiritual splendor.

To foresee this necessity, consider but a moment the richness of our heritage from the past, its orderly sequence, its uplifting wave of power, its conservation of force.

Think of the Hindoo, with folded hands, soaring in contemplation, thousands of years ago—think of what he has left to us. Think of the Hebrew man coming out of Ur, of the Chaldees, to find for us the One Great Spirit. Think of the somber Egyptians, those giants who struggled so grimly with fate—think of the stability they have given to us. Think of the stars of Israel singing in the morning's dawn. Think of the lonely man of Nazareth breathing a spirit of gentleness of which the world had never heard before. Think of the delicately objective Greeks, lovers of the physical, accurate thinkers, the worshipers of beauty. Think that in them the Orient, sleeping, was born anew. Think of the Goth, and with him the birth of emotion as we know it. Think of modern Science which has taught us not to fear. Think of modern Music, arising in glory as the heart took wings—a *new thing under the sun*. Think deeply of the French Revolution and Democracy—the utterance of freedom, the beginning of the Individual Man. Think now of our own age with its machinery, its steam power, its means of communication, its annihilation of distance. Think of the humanitarianism of our day. Think, as we stand here, now, in a new land, a Promised Land that at last is ours, think how passionately latent, how marvelous to contemplate is America, our country. *Think that here destiny has decreed there shall be enacted the final part in the drama of man's emancipation: the redemption of his soul!*

Think of these things, think of what they signify, of what they promise for us, and think then that as architects it peculiarly behooves us to review our own special past, to forecast our future, to realize somewhat our present status.

Summoned to answer before an enlightened judgment seat, how shall we now give other, alas, than a wretched accounting of our stewardship? How shall we excuse our sterility? We surely need to inquire, for we must need explain the emaciation of our art in the midst of plenty; its weakness in the midst of strength, its beggarly poverty in the midst of abundance.

By what glamour or speciousness of words shall we persuade a wrathful judgment toward kindness? How can our rapid record be made to plead for us?

Shall we summon the clear-eyed intellectual Greek or the emotional and introspective Goth to bear witness that we stand as ambassadors in their names—we would surely be repudiated.

Shall we call to the fateful Egyptian or the dashing, polished Assyrian—one would scorn us, the other would flout us.

Who are we then, and how shall we explain our sinister condition, our mere existence?

Shall we claim we are second cousins to Europe, or must we, before we can ourselves behold the truth, so far abase our heads in the ashes as to acknowledge that we of the great and glorious ending of the nineteenth century are the direct lineal descendants of the original bastards and indiscretions of architecture?

Or, still seeking excuses in our fin-de-siècle pocket, shall we plead in the language of myth that our art, like Brünhilde, lies sleeping; that she awaits a son of nature, one without fear, to penetrate the wall of flame, to lift her helmet's visor?

Dreading the storm, shall we seek shelter under the spreading plea that poets are born, not made; that, if Nature for all these centuries has not brought forth a great master spirit in the architectural art, it must be for very good reasons of her own—for reasons definitely interwrought with the beneficence of her own rhythmic movements. That, with her endless fecundity, there must be a profoundly significant reason for this barrenness.

Or, perhaps, shall we simply say that men have now turned to other gods, that they have forgotten the ancient deities?

That there has arisen in our land a new king who knows not Joseph; that he has set o'er us taskmasters to afflict us with burthens?

All these pleadings may be true, yet after all they do not explain why we make easy things very difficult, why we employ artificial instead of natural processes, why we walk backward instead of forward, why we see cross-eyed instead of straight-eyed, why we turn our minds inside out instead of letting them alone; they do not explain why we are so vulgarly self-conscious, so pitifully bashful, so awkward in our art, so explanatory, so uncertain that we know anything at all or are anybody in particular, so characterless, so insipid, so utterly without savor. They do not explain why the intellectual and emotional phases of the

architectural mind do precisely the wrong thing when the right thing is quite attainable.

No! I pretend to advocate the real, the true cause of my generation, of my art. I do not wish to abase them except in so far as he who loveth chasteneth. I know that the secret of our weakness lies not only in our plethoric dyspepsia, in our lack of desire, in our deficiency in gumption and moral courage, but that it lies primarily in the utterly purposeless education we have received.

I know that the architectural schools teach a certain art or method of study in which one is made partly familiar with the objective aspects and forms of architecture. I know that this, as far as it goes, is conscientiously and thoroughly done. But I also know that it is doubtful, in my mind, if one student in a thousand emerges from his school possessed of a fine conception of what architecture really is, in form, in spirit, and in truth; and I say this is not primarily the student's fault. I know that before entering his architectural school he has passed through other schools, and that they began the mischief; that they had told him grammar was a book, algebra was a book, geometry another book, geography, chemistry, physics, still others; they never told him, never permitted him to guess for himself, how these things were actually intense symbols, complex ratios, representing man's relation to nature and his fellow man; they never told him that his mathematics, etc., etc., came into being in response to a *desire* in the human breast to come nearer to nature; that the full moon looked round to the human eye ages before the circle was dreamed of.

Our student knows, to be sure, as a result of his teaching, that the Greeks built certain-shaped buildings, that the Goths built certain-shaped buildings, and that other peoples built other buildings of still other shapes. He knows, moreover, if he has been a conscientious hewer of wood and drawer of water, a thousand and one specific facts concerning the shapes and measurements and ratios of the whole and the parts of said buildings, and can neatly and deftly draw and color them to scale. He moreover has read in the philosophies, or heard at lectures, that the architecture of a given time gives one an excellent idea of the civilization of that time.

This, roughly speaking, is the sum total of his education; and he takes his architectural instruction literally, just as he has taken every other form of instruction literally from the time he was a child; because he has been told to do so, because he has been told that architecture is a fixed, a real, a specific, a definite thing; that it's all done, that it's all known, arranged, tabulated and put away neatly in handy packages called books. He is allowed to believe, though perhaps not distinctly so taught, that, to all intents and purposes, when his turn comes, if he wishes to make some architecture for Americans, or for this generation at large, he can dip it out of his books with the same facility that dubs a grocer dipping beans out of a bin. He is taught by the logic of events that architecture in practice is a commercial article, like a patent medicine, unknown in its mixture, and sold to the public exclusively on the brand.

He has seriously been told at the school, and has been encouraged in this belief by the indorsement of people of culture, that he can learn all about architecture if he but possess the attributes of scholarship and industry. That architecture is the name of a system of accredited, historical facts as useful, as available and as susceptible to inspection as the books of a mercantile house.

Everything literal, formal and smart in his nature has been encouraged, the early and plastic glow of emotion and sensibility has been ignored.

He has been taught many cold and dead things, but the one warm living thing that he has not been taught and apparently never will be taught is the stately and all-comprehending truth that architecture, wherever it has appeared and reached a spontaneous culmination is not at all what we so stupidly call a reality, but, on the contrary, it is a most complex, a glowing and gloriously wrought metaphor, embodying as no other form of language under the sun can do, the pure, clean and deep inspiration of the race flowing as a stream of living water from its well-spring to the sea.

He has not been taught that an architect, to be a true exponent of his time, must possess first, last and always the sympathy, the intuition of a poet; that this is the one real, vital principle that survives through all places and all times.

This seeking for a natural expression of our lives, of our thoughts, our meditations, our feelings, is the architectural art as I understand it; and it is because I so understand it, that, ignoring the viciousness of the past, I gladly make an appeal to the good that is in human nature; that goodness of heart and soundness of head, that ready and natural response of the soul in which I have always trusted and shall always trust. It is to this sane and wholesome quality that I plead for the abiding sincerity and nobility of our art. It is to this *manliness* that I call to come before the judgment seat and make an answer for us.

I know very well that our country will in due time possess a most interesting, varied, characteristic and beautiful architecture; that the time will begin whenever we take as our point of the departure the few and simple elements of architecture and not its complex forms. That this time will come just so soon as the young are relieved of the depressing weight of a factitious education, the benumbing influence of an instruction that insulates them from the vitalizing currents of nature. Just so soon as those having them in charge, coming to the full sense of the fact, realizing how truly dangerous a thing is a little knowledge, a partial knowledge, dreading to assume the responsibility for stunted, for

imperfectly developed natures, feeling how deeply necessary it is that a technical or intellectual training be supplemented by a full, a rich, a chaste development of the emotions, shall say to the young that they are free, that from the musty school they may fly to the open air, to the sunshine, to the birds, the flowers, and wanton and joyous in their own fancies, face to face with the integrity of nature, they shall substitute for the arbitrary discipline of the school the natural, the easy self-control of a dignified manhood, to the end that not books but personal feeling, personal character and personal responsibility shall form the true foundation of their art.

It has, alas, for centuries been taught that the intellect and the emotions were two separate and antagonistic things. This teaching has been firmly believed, cruelly lived up to.

How depressing it is to realize that it might have been taught that they are two beautifully congenial and harmonious phases of that single and integral essence that we call the soul. That no nature in which the development of either is wanting can be called a completely rounded nature.

That, therefore, classical architecture, so called (meaning the Greek), was one-sided and incomplete because it was almost exclusively intellectual. That the emotional architecture (meaning especially the Gothic) was likewise one-sided and incomplete, however great and beautiful its development of feeling, because of the almost total absence of mentality. That no complete architecture has yet appeared in the history of the world because men, in this form of art alone, have obstinately sought to express themselves solely in terms either of the head or of the heart.

I hold that architectural art, thus far, has failed to reach its highest development, its fullest capability of imagination, of thought and expression because it has not yet found a way to become truly plastic; it does not yet respond to the poet's touch. That it is today the only art for which the multitudinous rhythms of outward nature, the manifold fluctuations of man's inner being have no significance, no place.

That the Greek architecture, unerring as far as it went—and it went very far indeed in one direction—was but one radius within the field of a possible circle of expression. That, though perfect in its eyesight, definite in its desires, clear in its purpose, it was not resourceful in forms; that it lacked the flexibility and the humanity to respond to the varied and constantly shifting desires of the heart.

It was a pure, it was a noble art, wherefore we call it classic; but after all it was an apologetic art, for while possessing serenity it lacked the divinely human element of mobility. The Greek never caught the secret of the changing of the seasons, the orderly and complete sequence of their rhythm within the calmly moving year. Nor did this self-same Greek know what we now know of nature's bounty, for music in those days had not been born; this lovely friend, approaching man to man, had not yet begun to bloom as a rose, to exhale its wondrous perfume.

That the Gothic architecture, with somber, ecstatic eye, with its thought far above with Christ in the heavens, seeing but little here below, feverish and overwrought, taking comfort in gardening and plant life, sympathizing deeply with nature's visible forms, evolved a copious and rich variety of incidental expressions, but lacked the unitary comprehension, the absolute consciousness and mastery of pure form that can come alone of unclouded and serene contemplation, of perfect repose and peace of mind.

I believe, in other words, that the Greek knew the statics, the Gothic the dynamics of the art, but that neither of them suspected the mobile equilibrium of it—neither of them divined the movement and stability of nature. Failing in this, both have forever fallen short, and must pass away when the true, the *Poetic Architecture* shall arise; that architecture which shall speak with clearness, with eloquence and with warmth of the fullness, the completeness of man's intercourse with nature and with his fellow men.

Moreover, we know, or should by this time know, that human nature has now become too rich in possessions, too well equipped, too magnificently endowed that any hitherto architecture can be said to have hinted at its resources, much less to have exhausted them by anticipation.

It is this consciousness, this pride, that shall be our motive, our friend, philosopher and guide in the beautiful country that stretches so invitingly before us.

In that land, the schools, having found the object of their long, blind searching, shall teach directness, simplicity, naturalness; they shall protect the young against palpable illusion. They shall teach that, while man once invented a process called composition, nature has forever brought forth organisms. They shall encourage the love of nature that wells up in every childish heart, and shall not suppress, shall not stifle the teeming imagination of the young.

They shall teach, as the result of their own bitter experience, that conscious mental effort, that conscious emotionality, are poor mates to breed from, and that true parturition comes of a deep, instinctive, subconscious desire. That true art, springing fresh from nature, must have in it, to live, much of the glance of an eye, much of the sound of a voice, much of the life of a life.

That nature is strong, generous, comprehensive, fecund, subtle; that in growth and decadence she continually sets forth the drama of man's life.

That, thro' the rotating seasons, thro' the procession of the years, thro' the march of the centuries, permeating all, sustaining all, there murmurs the still, small voice of a power that holds us in the hollow of its hand.

ARCHITECTURAL EDUCATION.*

BY HENRY VAN BRUNT, F. A. I. A.

THE Committee on Education, on account of the wide separation of its members, has found it impracticable either in person or by correspondence to consult together with that freedom which is demanded by the increasing importance and difficulty of the subject committed to them. But the present condition and future prospect of architecture seems at this moment to be so peculiarly dependent upon the character of the training in the professional schools of the country that your committee venture to present for your consideration a brief and necessarily unstudied statement of the architectural situation, with an inquiry as to the possibility of improving it through a modification of our educational methods.

This statement is made not with the expectation of revealing anything new, but rather to formulate in a more or less definite way a condition of things which, without such formulation, is apt to remain without clear recognition; and the suggestion for improvement is offered, less with the expectation of laying before you a practical scheme for reform, than of stimulating inquiry and awakening discussion.

We consider that the present condition of architecture in this country as a fine art, though there are clear indications of a late advance in academic scholarship and in technique generally, is unsatisfactory, because in this advance there cannot be detected any healthy progressive principle. In fact, it is rather a progress of personal enterprise and skill than of principles, and does not seem to promise any large or characteristically national fulfillment. It is made on irregular skirmishing lines, not without evidence of individual gallantry here and there, but with none of that effective unity of effort which is the only means of achieving results adequate and proper to our especial civilization.

As architecture is now for the first time in the hands of men of education, it becomes very important indeed for us to consider whether this education cannot be such as to inculcate convictions, to make our young architects the agents of a far more definite and orderly progress, and to inspire them with a certain definite consciousness of duty in respect to the development of a system of architectural forms less conventional in character and more accurately adjusted to the expression of our new life.

But it is said, "Let us be content to do our duty to our art and to our clients, each one to the best of his ability and according to his best lights, and let the style of our time take care of itself, as the styles of former ages and peoples have been created. For these historical styles have developed *themselves* out of the political, religious, commercial, ethnological and social conditions, and technique has varied with variations in materials and methods. Why should we attempt to interfere with this natural automatic process of evolution?"

In answer to this question is involved a statement of the difference in the conditions of practice in ancient and modern times. But it seems hardly necessary to repeat this statement before such an audience as this, and to say again that our past is a far larger region, a far greater inheritance than belonged to any of our predecessors, and that our minds are preoccupied and our ideas complicated by an infinite variety of architectural monuments.

The progress of investigation in archæology has made us familiar with the buildings and arts of every age and race; we have classified and defined the styles; we have theorized infinitely and created a science of æsthetics. We can, therefore, no longer be, like our predecessors, unconscious ministers in the development of style. As our resources have been infinitely expanded, our personal responsibilities to our art have become far greater, and our task far more difficult. Architecture has thus necessarily become a learned profession, and we cannot do our duty without academies, libraries and museums, and a large equipment of photographs and prints. The architects of the great historical eras, dealing with comparatively simple problems and with only one set of forms at a time, were enabled to concentrate their forces, to develop style without affectations, and with infinitely less consciousness of effort than ourselves, who are distracted by our knowledge and perplexed by our exacting reminiscences. These conditions have introduced a new element into the practice of architecture, an element of self-consciousness, of *dilettanteism* and imitation, which have sophisticated modern architectural manifestations, and deprived them of that sincerity, power and simplicity which can result only from concentration of intelligent effort, and from strong convictions, based not upon the traditions of the studios, but upon a philosophical analysis of our vast resources of design.

Without presuming to criticise the methods of instruction in our schools of architecture, as at present conducted, and certainly with a grateful appreciation of what their professors and teachers have already accomplished in the service of a purer and nobler art, we would ask them to systematize and coördinate the study of all the historic styles, as they were successfully developed in their progress from picturesque barbarism to the elegance and refinement of the higher civilizations; to make this study an essential part of the curriculum of the schools; to teach the outlines of history by the architecture which was a part of it; not to select certain of the styles for exclusive study, leaving what seems the less interesting and beautiful, the less highly organized or less applicable to our use to be picked up by chance, if at all. Our

project would be to pursue this study of history through its manifestations in architecture from archaic to modern times, or at least to the nineteenth century, not with the minute patient scrutiny of the archæologist, but with the spirit of the artist, seeking to learn how forms and ornament were developed out of the genius of civilizations and peoples, and how, as they were significant of the progress of human culture in the past, they should be used in the service of modern art.

We recognize that the best discipline of the faculties of design can be obtained only by especial and continued practice with the most highly organized of all these styles, and that classic art must continue to be the *means*, but not the *end*, of this discipline.

We believe that this organized study of the historical styles would prevent the graduates of our schools from becoming mere spendthrifts with their inheritance, and that with this new knowledge, apparently never heretofore taught, they would learn to be tolerant. "*Savoir c'est pardonner.*" They would practice, not with unreasoning prejudice in favor of this, that or the other forms of art, nor with the indifference of eclecticism, but with a sense of the deep significance of these forms, to whatever era they belonged, as expressions of the history of our race, and with a conviction that decorative forms in historical architecture are not mere fashions or accidents of the times, nor mere independent isolated phenomena, but symbols, slowly evolved by processes of art from certain definite conditions of human life, as links in a continuous chain of evolution, as genuine and serious manifestations of art, however rude.

Would not this larger comprehension, thus obtained, of the significance of ancient decorative forms and this increased respect for them as means of expression have an immediate effect upon their adjustment to modern uses, and ultimately upon the development of contemporary style? Would they not be used with more intelligence and feeling? Would not our young architects be less subject to undisciplined caprice on the one hand or to academic prejudice on the other? Would they not become in the best sense catholic and more worthy to inherit the inexhaustible wealth of the past? Would they not, above all, perhaps, be freed from the mean virtue of conformity or archæological accuracy, which has done more to retard the progress of architecture as a fine art than any other influence except ignorance and pretense?

There can be no doubt that as the true basis of architectural composition of the highest sort is to proportion and to decorate structure, and that as structure is constantly developing with new methods, new devices of engineering and new materials, the architecture of the immediate future must necessarily assume new character, at least in its outlines, supplanting to a great extent those classic or romantic ideals or standards which custom has arbitrarily imposed upon modern practice. Are our present methods of education preparing our young men to accept these inevitable changes without a wasteful and futile effort to effect a reconciliation between ancient academic prejudices and these new things? Will the architecture of our country in the next decade express in no doubtful terms the civilization of America in its best estate? For this difficult task do we not need a much more scientific coördination of precedent, a much more philosophic analysis of the architecture of the past, than is secured by our present methods of education? The question evidently is, not how are we to effect a compromise between engineering and architecture, but how are we to convert engineering into architecture, how are we to use the immense resources of beautiful precedent at our command in order to translate this prose into the poetry of a high art? The language of form, made accessible to us by a system of study such as we propose, would be as copious as the language of words at the command of Tennyson and Browning, of Longfellow and Lowell. The vast vocabulary of these great masters, these "builders of the lofty rhyme," is made up of words and phrases derived from the entire experience of mankind, not from any especial era, or from any selection approved by any school or academy of learning. They could not have expressed their inspirations with any such arbitrary or scholastic limitations of terms. The duties and the privileges of the modern architect in respect to his art are the same as those of the modern poet in respect to literature, but the prejudices of the architect's education have, by exclusions of language apparently entirely artificial and unnecessary, embarrassed his efforts to express in terms of art the exigencies of modern structure, material and use. He is still trying to write new songs and sonnets and epics in classic Latin or mediaeval French, and is still wondering that no one but himself comprehends or enjoys them. We are conscious that this analogy between literature and architecture must not be pushed too far, for the two arts have very different messages to deliver to the intelligence of mankind. Architecture, of course, can express emotions and thought only indirectly by symbols. But the analogy is close enough to support and illustrate our argument.

If the American Institute of Architects should succeed in persuading the schools of architecture throughout the country to teach the whole course of history by architecture and should open to them the whole series of historic forms in the order of their evolution without prejudice, the genius of the more spacious times in which we live, which are the culmination and the result of all that has gone before, would stand a much better chance for adequate expression. Let the schools teach our young men not to conceal or disguise or condone in a mask of cold convention the inevitable changes of form which must come in process of time with the changes in our social and economic conditions, but to welcome them frankly and express them, not with quotations

* Read as the report of the Standing Committee on Education of the American Institute of Architects at the twenty-eighth annual convention, at New York, October 15, 1894.

from other tongues, not with the affectations and pedantries of academical learning, but with the large freedom derived from a comprehensive knowledge of all that has been done or said in forms of art by all people.

It seems to us that it is only by some such process as this that architecture as a fine art can keep pace with science. We are not proposing any such folly as the deliberate invention of a new style, or any possible amalgam of old styles, but we are inquiring whether it is not practicable by an analytic study of precedent, without arbitrary preferences, to apply to the art of our times a synthetic method of evolution. Our art should be an art of scholars and artists, not of antiquarians, nor of amateurs, nor of pretenders. They should be instructed and inspired by the past, not controlled by it. As viewed from a philosophical standpoint, do not our present methods, without such a comparative study of form as this, open us fairly to the charge of empiricism?

If we may not in this way accomplish a revolution in the architecture of our time (we do not desire a revolution, but a reform) we may at least give to the architects of the next decade a far wider point of view and a far deeper understanding of their functions and responsibilities in an evolution of style, which, if it is not directed, will continue to be lost in fruitless and disorderly experiments.

When we see members of the Institute, men of the highest available professional training, repeating at the same times and in the same places chateaux of Francis I, town halls of Henry IV, Italian villas of the cinque cento, palaces of Palladio, decorating casinos and theaters with every form of Arabian or Saracenic art, building libraries in southern Romanesque, country houses like the farms of Normandy, churches like those of Edward IV, or St. Louis, dwellings after those of every era of English history, public structures in every form of the Renaissance—when we see them dissipating their forces in these barren revivals, each one according to his fancy, we may well doubt if this is the best possible use of our knowledge of precedent. Can the discipline of our schools produce no better result than this confusion of tongues? Is it not time for us to consider how we can work together with profitable unity of effort, each aiding the other? Does not the inevitable modern accent which may be detected in all these attempts to speak ancient languages prove that characteristic modern style is possible, and is only restrained from its full and natural development by the prejudices of our education? If the secret of rational progress does not lie in a more scientific and thorough method of studying the succession of the styles and the historical conditions from which they grew, to the end that we may use them not as mere imitators and revivalists but as artists and creators, where else shall we seek for a remedy?

The new type born of such a study must necessarily be infinitely richer, more elastic, more various than any of those which lie behind it—it must include all their virtues and none of their vices. It would substitute a true vernacular for one which is spurious and vulgar. Architectural effort united upon such a type as this would not imply a uniformity, which would soon become wearisome and monotonous. It would rather imply variety in unity, effective concentration of power, and such a concentration means logical and consistent progress. Such a progress with our present methods surely we are not achieving.

Hitherto, it must be sadly confessed, we have treated our great resources, if not like undisciplined barbarians with the spoils of war, certainly more like the arbiters of Parisian fashions than like artists and scholars. The new education, far less pedantic and far more cosmopolitan and generous than the old, and also far more discriminating, must teach us the real value and meaning of our inheritance and how to use it with a full appreciation of our responsibility to art and to the civilization of our time.

THE TWENTY-EIGHTH ANNUAL CONVENTION OF THE AMERICAN INSTITUTE OF ARCHITECTS.

THE Twenty-eighth Annual Convention of the American Institute of Architects was held at New York, October 15-17, 1894, in the rooms of the Architectural League, at the Fine Arts Building, the following being in attendance:

Akron, Ohio.—George W. Kramer.
 Baltimore, Md.—George A. Frederick.
 Boston, Mass.—Robert D. Andrews, W. G. Preston, William Roach Ware, editor *American Architect*, Charles A. Cummings, C. H. Blackall.
 Bridgeport, Conn.—W. R. Briggs.
 Buffalo, N. Y.—John H. Coxhead.
 Chicago, Ill.—D. H. Burnham, W. L. B. Jenney, R. C. McLean, editor *INLAND ARCHITECT*, Clarence L. Stiles, Louis H. Sullivan.
 Cincinnati, Ohio.—James W. McLaughlin, George W. Rapp.
 Cleveland, Ohio.—C. F. Schweinfurth, Levi T. Scofield, F. S. Barnum.
 Columbus, Ohio.—J. W. Yost, W. A. Linthwaite.
 Duluth, Minn.—O. G. Traphagen.
 Elmira, N. Y.—J. H. Pierce, H. H. Bickford.
 Indianapolis, Ind.—Bernard Vonnegut.
 Kansas City, Mo.—Henry Van Brunt.
 Louisville, Ky.—Henry U. Frankel.
 Nashville, Tenn.—William C. Smith, Julius G. Zwicker.
 Newark, N. J.—Jeremiah O'Rourke.
 New Orleans, La.—Thomas J. Sully.
 New York, N. Y.—A. J. Bloor, Louis De Coppet Berg, Charles I. Berg, A. W. Brunner, R. W. Gibson, Charles C. Haight, R. H.

Hunt, Henry B. Ingram, *Architect and Builder*, Arthur B. Jennings, Edward H. Kendall, Theodore de Lemos, A. W. Longfellow, Henry C. Meyer, editor the *Engineering Record*, Napoleon Le Brun, Henry Rutgers Marshall, J. W. Moulton, George B. Post, S. Gifford Slocum, Thomas Tryon, James E. Ware, F. A. Wright, Joseph Wolf, William R. Ware, R. M. Upjohn, C. Powell Karr, George Keister, A. G. Thomson, Alfred H. Thorp, J. F. Harden, R. H. Robertson, A. W. Cordes, R. C. Sconce, Walter Cook, George Edward Harding, G. W. E. Field, Julius Harder, John R. Thomas.

Orange, N. J.—Augustus Eichhorn.

Palmyra, N. Y.—Joseph Blaby.

Philadelphia, Pa.—T. P. Chandler, Henry A. Macomb, George C. Mason, W. L. Plack, William C. Prichett, Jr., Sammel Henkel, Jr., Edward Hazlehurst, Frank Miles Day.

Pittsburgh, Pa.—C. M. Bartberger, T. D. Evans.

Providence, R. I.—F. W. Angell, Alfred Stone, Edward J. Nickerson, Franklin J. Sawtell.

Rochester, N. Y.—Thomas Nolan, Otto Block.

St. Louis, Mo.—C. D. Boiselier, W. S. Eames, W. N. Foster, Charles K. Ramsey, A. F. Rosenheim, William B. Ittner, Theodore C. Link.

Stamford, Conn.—William F. Donovan.

Syracuse, N. Y.—Asa L. Merrick.

Toledo, Ohio.—E. O. Fallis.

Trenton, N. J.—Amos J. Boyden.

Utica, N. Y.—Frederick H. Gouge.

Washington, D. C.—Glenn Brown, J. L. Smithmeyer, James G. Hill, J. C. Hornblower, Robert Stead.

Wilkesbarre, Pa.—Albert H. Kipp.

Worcester, Mass.—E. Boyden, C. Waldo Fisher.

Yonngstown, Pa.—L. Boncherle.

The convention was called to order by the president, Daniel H. Burnham, of Chicago; Alfred Stone, of Providence, Rhode Island, secretary.

The first session was called to order by President D. H. Burnham, who addressed the Institute as follows:

PRESIDENT'S ADDRESS.

Fellows of the American Institute of Architects:

GENTLEMEN.—During the last year ten Fellows of the Institute have passed away: J. B. Johnston, Alpheus C. Morse, P. W. Ruehle, George H. Edbrooke, August Bauer, George Walter da Cunha, William Henri Adams, William Worth Carlin, Arthur Rotch and James Douglas.

Mr. Carlin was one of the presidents of the Western Association of Architects and a director of the American Institute. Mr. Rotch's whole manhood was unselfishly devoted to the higher interests of his profession, to which he not only gave much of his time but also a large part of his fortune. We mourn for those who have gone; their honorable lives have left indelible impressions on our hearts and on the records of the Institute.

Since we met together thirty-two new members have been elected and three new Chapters have been formed, the latter being the South Carolina, the Washington State, the Brooklyn. The organization now contains twenty-six Chapters and about six hundred members.

I congratulate you on the continued usefulness of the Institute; it has been conservative, though positive and progressive.

During the last twenty years the methods of practice of our profession show much improvement, due largely to the moral support of this body, the influence of which has been wise and beneficent; for, while it has from time to time recorded its convictions, it has refrained from insisting too rigidly on the observance of its rules. Through it the beliefs of the architects have been crystallized, while each man has been left quite free to pursue his own course. Though as individuals we have been led or constrained by the consensus of the opinions of the Fellows, we have been moved more by a desire to conform to the established standards of professional life than by any fear of discipline.

It is a good thing for the Institute to publicly express its views concerning vital matters of professional conduct. Until the schedule of fees was published, uniformity of charges did not exist, and there was no authority to back us in our demands for reasonable remuneration. Now, however, both the federal and state courts, in the absence of agreements to the contrary, accept that document as conclusive. The people have accepted as reasonable and just what the Institute has decided to be proper and right, and thus many abuses have been cured. I believe the converse will be true, and that the people will believe those things to be unreasonable and unjust which the Institute stamps as improper and wrong.

In the long run men are dealt with according to their estimate of themselves, and if we seek for higher standing among our countrymen we must live up to the ideals of our more unselfish moments. Let the Institute, therefore, condemn those things which we have all called wrong, but some of which we have continued to do; let this condemnation be printed on the schedule of fees so that courts, clients, and architects hereafter may not fail to understand our views; let the publication continue until custom shall have established laws too rigid to be broken, and until all men have learned to conform. There are clients now who will not deal with architects who are not in good standing among their fellows. This is a growing class of men. We should let them know what is regarded as unprofessional conduct. In his dealings with us I believe the average American will readily conform to the standards that we ourselves set up.

If clients demand and easily obtain preliminary services for little or nothing, it is our fault, not theirs; our own greed and unfairness to each other enables them to use us. We know this well and have often privately spoken of it among ourselves. Let us put a stop to this practice; it has been going on for hundreds of years, but it has always been productive of evil, and the time has come to say so publicly.

A young man, immature, not ready for independent professional life, makes sketches, or goes into a competition, without promise of pay; in an evil day for him his design is accepted and at a bound he springs into full practice; he makes a financial success and an artistic failure, and when the fever of youth is past, if he has the soul of a real architect, he looks back with bitter sorrow to the waste of his best possibilities. As he begins, so must he go on; knowing not enough and no longer having the time for study, his last work is like his first, suggesting talent or mediocrity, according to the nature of the man, but bearing the marks of weakness, due to arrested development, and stamped with the author's sad consciousness of imperfection or conscious insolence.

The custom of showing designs to clients without pay, in the hope of "getting the job," is bad for the architect, worse for the client and worst of all for the suffering public who must be inflicted with the crudities of our youth.

Not so long ago practitioners of the law and of medicine solicited patronage; to do this now would lower the standing of any lawyer or doctor, and he would be called a pettifogger or quack. What is true of them should be true of architects, if we are to keep pace with them. A lawyer or doctor may not go about introducing himself and soliciting business, nor may he take fees materially less than the customary ones. No more should an architect. If the Institute condemns these things architects must conform and

stand squarely on its decision, or lose caste in the eyes of the profession and of the public.

Mr. Carrère has printed and circulated a paper on Preliminary Fees; the suggestions contained in it are of high value. Let a new schedule of fees be made, containing his modifications and a statement that it is unprofessional to make preliminary drawings for a competition or otherwise, for less than the regular fees, and I believe the abuses we have so long suffered under will soon disappear. There is great virtue in the formal publication of any truth. On the same document should be printed an expression of our belief that the best way to obtain satisfactory designs is by employing outright an architect known to be skilled in the special work proposed to be done; that the next best method is by a competition limited to a few experienced designers, and that the poorest is by unlimited competitions.

Extensive amendments to the by-laws are proposed, and are to be acted on at this meeting. I do not wish to discuss them, but only to express the hope that nothing will be done tending to lay us open to the charge of being a trade union instead of a deliberative society of professional men.

For nearly a generation there has been a constant effort on the part of the Institute to introduce better methods in the designing of Government work. Our committees have been met courteously in Washington. They have always received assurances of sympathy, but have never until now had the active support of the proper officials.

A bill has now been introduced in both branches of Congress, which has received the indorsement of the Secretary of the Treasury, of the Senate and House Committees on Public Grounds and Buildings, and of the officers and friends of the Institute. There is strong ground for the belief that it will become a law. For this result the Institute owes special thanks to Messrs. Post, Price, Carrère, Kendall, who, together with Messrs. Hunt, McKim, Peabody and others, have brought it about.

The bill provides for a commission of five men, who shall have charge of the selection of the architects of all public buildings erected by the United States. Three members of it are to be architects appointed by the President. Should the measure become a law, it is evident that its success will depend upon the architects of the commission. The President will undoubtedly be inclined to nominate the foremost men of the country, and the question naturally arises whether those selected by him will serve. On this point I wish to say that no one should allow himself to refuse for any cause except ill-health. If an American would serve his country in any public capacity, it must nearly always be done at great personal cost. We all preach this doctrine, but when it comes to the test we are apt to shirk our duties. Let the architects set an example to their fellow-countrymen, should the opportunity be offered to them to do so. Those fitted for the high functions proposed under the bill are the men who have large business interests. If they be requested to serve, and refuse, their example will result in defeating the very purpose for which the bill is framed, the commission will fall into the hands of inferior men, and its operations will become a reproach instead of the great benefit we are looking for. I have no doubt that the passage of this bill will be followed by nominations for the commission of men who can least afford to give their time to the work. But they must accept, because in their hands will lie the fate of this glorious opportunity. If it be allowed to fall into the realm of perfunctory officialism, because the chief magistrate of the nation cannot induce the proper citizens to take the places, the curse of adgraded public architecture will fall on us and we will be justly condemned. The highest expressions of a people's art never rise above that of its public monuments. Remember that the monuments of today are the public buildings, and that to start the work on them aright under this bill the services of the most able men in the profession will be demanded, and that no one may refuse to do his part of the duty.

Secretary Alfred Stone read the twenty-eighth annual report of the Board of Directors, as follows:

REPORT OF THE BOARD OF DIRECTORS.

The twenty-seventh annual convention, which was held in Chicago in July and the opening days of August, in connection with the World's Congress of Architects, will long be remembered by those who were so fortunate as to attend it and to share in the enjoyment of that unrivaled display of architecture which housed the World's Columbian Exposition. The generous hospitality of the Illinois Chapter, the fine drive which was given to the visitors for the purpose of showing the interesting streets, parks, boulevards and architecture of Chicago, and the sail on the lake, ending with the enchanting view of the illuminated White City and the display of fireworks, are among the choicest memories of one's life.

In the fifteen months which have intervened there has been much to engross the attention and tax the energies of your directors, a short resumé of which is herewith submitted.

Mr. A. Page Brown, of San Francisco, was elected by the Institute as a director for three years, the nominating committee having put his name on the printed ballot without ascertaining that he was not a Fellow of the Institute. The board of directors therefore declared Mr. Robert Stead, of Washington, D. C., to be elected, he having received the next highest number of votes east.

The first meeting of the directors, which occupied two days, was marked by a very full attendance, and at that meeting the Buffalo Chapter officially called the attention of the board to the design of the proposed Buffalo Federal Building, and reopened the question of intrusting the designing of the government buildings to the office of the Supervising Architects, or of opening them to a properly devised and equitable competition. The details of the contest and the merits of the case have been so fully discussed in the correspondence of the president and the Board of Directors with the Secretary of the Treasury and the Supervising Architect, in the admirable paper prepared by Mr. Glenn Brown, a Fellow of the Institute, and in the discussions of the architectural journals and the press of the country, that it is not necessary to rehearse the story, but simply to state that the so-called McKaig Bill, which will if passed bring about the desired reform, has been reported upon favorably by the House Committee on Public Buildings and Grounds, and is now on the calendar in the House and with every prospect of its passage in both the House and the Senate, and if passed will probably receive the signature of the President.

The Board of Directors wish to thank the Special Committee of Architects, Messrs. Bruce Price, John M. Carrère and E. H. Kendall, who have had this matter especially in charge in Washington, for their untiring exertions and successful work, and also the whole body of the profession both in and out of the Institute, for the interest created in the subject through the local press and for the promise of support which has been obtained by the personal appeal to senators and members of Congress by individual members of the profession.

Before the expiration of the Fifty-third Congress we hope to be able to congratulate you upon the passage of the McKaig Bill.

At the first meeting of the board a committee consisting of Messrs. Kendall, R. W. Gibson, E. A. Kent, J. W. McLaughlin and W. L. B. Jenney, was appointed to consider the relations of the Chapters to the Institute, which committee will make its own report, and together with a committee appointed at the last annual convention—Messrs. Ferry, Hilsley and Gibson—have sent to the secretary a long list of proposed amendments to the by-laws which, in accordance with existing by-laws, have been sent to each Fellow of the Institute more than thirty days before the date of this convention and will be properly before it for action at this time.

The death of Mr. W. W. Carlin, of Buffalo, caused a vacancy in the Board of Directors for one year, and Mr. A. Page Brown, who had been elected a Fellow, was appointed by the Board of Directors to fill the vacancy.

The directors have requested the president and secretary to issue charters to three (3) new Chapters, namely:

On July 27, to the Southern California Chapter of the A. I. A., with twenty-two members.

On August 1, to the Washington State Chapter of the A. I. A., with twenty-three members.

On August 10, to the Brooklyn Chapter of the A. I. A., with fourteen members.

There have been three letter ballots issued during the year.

Thirty-two Fellows have been elected and five have been rejected.

A letter ballot will be issued upon the adjournment of this convention containing eight names.

There have been ten deaths of Fellows since the last annual convention—the largest number, we think, in any one year since the organization of the Institute—and three resignations.

There were 475 Fellows at the date of the last convention and there are now the same number as at the last report.

In addition to the statistics given above, the secretary finds that there are twenty-six Chapters of the Institute, with an aggregate membership, not including honorary and corresponding members, of about six hundred.

Mr. William Pitt Preble Longfellow, elected nearly forty years ago a Fellow of the Institute, has, by giving up the practice of the profession, ceased to be a Fellow, but the work which he has done in writing a dictionary of architecture, and in much other architectural literary work, has kept closely in touch with the profession. The board, therefore, takes especial pleasure in proposing him for election as an honorary member of the Institute.

The board also proposes the election of Prof. Charles H. Moore, of Harvard College; John S. Billings, M.D., of the Johns Hopkins University; Baron Henry Von Geymüller, and Prof. Cady Staley and President of the Case School of Applied Science, for election as honorary members.

Mr. S. M. Randolph, who was admitted to the Western Association of Architects in 1884, and has been a Fellow of the Institute since the consolidation in 1889, has resigned because of entering other business, which is, however, closely connected with the profession, and, therefore, and also because of his honorable practice while in the profession, is recommended for election as a corresponding member.

The board also recommends for election as corresponding member Mr. J. S. Walker, of Apia, Samoa, an architect and engineer who is accredited to us by undoubted authority, and who feels more closely connected with this country than with any other, and is desirous of joining with us as closely as our Constitution and By-Laws will permit. It also proposes Prof. Edward S. Morse, of Salem, Massachusetts, the writer of the work on Japanese architecture; Montgomery Schuyler, so well known as a writer on architectural subjects; Charles MacDonald, the eminent engineer, and William Paul Gerhard, sanitary engineer, the last three of New York, as corresponding members.

Since the last annual convention the death roll has been unusually large and death has taken from us some of our most valuable Fellows.

J. B. Johnston died on the 20th of September, 1893, at Ogdeusburg, Vermont, aged 52 years.

Alphens C. Morse died on the 25th of November, 1893, at Providence, Rhode Island, aged 75 years.

P. W. Ruehl died on the 1st day of December at Chicago.

William Henri Adams, Chicago, died May 3, 1894.

George H. Edbrooke, in New York, died on the 25th of January, 1894.

George Walter da Cunha died on the 31st of January, 1894, at Newark, New Jersey.

August Bauer died February 8, 1894.

William Worth Carlin died on the 23d of March, 1894, at Buffalo, New York, aged 43 years.

Arthur Rotch died on the 15th day of August, 1894, at Beverly, Massachusetts, aged 44 years.

The secretary has just learned of the death of James Douglass, of Milwaukee, but cannot give the date.

Mr. Carlin was a member of the Board of Directors, and the vacancy caused by his decease was filled by the election of Mr. A. Page Brown, of San Francisco, who had received enough ballots at Chicago to elect him a director, but he was found at that time to be ineligible.

Mr. Arthur Rotch has done so much for the profession by his own work in this, his native country, and during a long residence in France; by the establishment, in connection with other members of his family, of a traveling scholarship, and by numerous gifts during his life and munificent benefactions by legacy upon his decease, that his name will be perpetuated in after years by the great and personal benefits to generations yet unborn.

In our list of honorary members we have for many years been permitted to print the name of César Daly, who died in Paris, January 12, 1894, distinguished as the author of "L'Architecture Privée" and other serials; a voluminous writer, a beautiful draftsman and accomplished designer, his reputation is enduring and his fame world-wide. By order of the Board of Directors Messrs. R. M. Hunt and the secretary were directed to prepare a proper minute for the records of the Institute, and to send a copy of the same to the family of the deceased, which was duly attended to.

John Baird, also an honorary member, died in Philadelphia, February 13, 1894, aged 72 years.

The secretary has learned that Mr. S. A. Cook, of Tacoma, Washington, died in that city on the 27th of April, 1893, leaving at that time but one Fellow of the Institute—Mr. G. W. Bullard—in the State of Washington.

The report of the proceedings of the Twenty-seventh Annual Convention and the publication of the papers read before the World's Congress of Architects was so voluminous, and the authors of the papers were so widespread, that there was a mortifying and necessary delay in its publication, but it is hoped that the value of the papers which it contains will compensate for the tardiness of their issue, and the board desires to take this method to thank the authors of the several papers for their kindness in preparing them. A large edition was printed and the secretary desires to announce that copies can be obtained from him if desired.

It is especially desired that they should be placed in public libraries, and Fellows can render a service to the treasury of the Institute as well as to their local libraries, by purchasing copies to be forwarded to them.

The board is impressed with the growing demand upon the profession on the part of committees representing state, county, municipal or other public and corporate bodies, to exact bonds for the completion of public buildings within stipulated amounts, a demand which should be resisted as humiliating and unprofessional and fraught with great danger, shifting as it does the best energies of an architect from producing artistic work and conscientiously serving his client to the best of his ability, to a constant study as to how he can manage to manipulate the work so as to be sure that its cost does not exceed the agreed sum without betraying in the work the evidence of the shaviness to which it has been subjected. It is suggested that steps be taken to secure the coöperation of the American Society of Civil Engineers to resist the insidious growth of a practice which if allowed to go on unshackled, will become so thoroughly entrenched that it cannot be shaken off.

The decision in the case of Rotch & Tilden vs. Fry shows the great value of carrying cases of assured attempts of infringements of the rights of architects into court and procuring decisions which will as precedents determine authoritatively the rights of architect and client, and great credit is due to them for persistently pursuing the case to a conclusion, and to a conclusion as just as it is important; but it is not often that an architect is able to bear the great expense of carrying a contest to a final decision, especially against a wealthy client who is determined to resort to all of the delays and appeals which a successful counselor can manage to obtain; it therefore seems fitting that some action should be taken to revive an effort that was made by the Western Association of Architects before the consolidation to form a protective league for the purpose of advising and if necessary prosecuting cases which may arise.

Renewed efforts have been made to secure for the daughters of the late President Thomas U. Walter, LL.D., the just compensation for professional services performed so fully and faithfully for the United States Government with such earnestness and enthusiasm that he thought little of himself or of the reward which was his true desert. In consequence he died poor, and those dependent upon him have been for many years trying to secure a part of that which he ought to have received. It is hoped that the present congress will pass the bill before it expires.

Arrangements have been made and committee appointed to secure data for a history of the Institute, and Mr. Bloor, for so many years the secretary of the Institute, has been retained for that purpose.

On motion of Robert Stead the report was referred to a committee of three. The Chair appointed Messrs. Robert Stead, C. F. Schweinfurth and J. W. McLaughlin. In the absence of S. A.

Treat the treasurer, Glen Brown, of Washington, was appointed secretary pro tem. The treasurer's report was received and referred to a committee of three: Messrs. E. I. Nickerson, J. W. Yost and G. W. Rapp, who subsequently reported that it was correct.

A synopsis of reports from Chapters was read by the secretary. They are twenty-six in number and a majority in a flourishing condition. The report on Chapters was referred to a committee consisting of Messrs. A. W. Longfellow, W. S. Eames and E. O. Fallis.

Henry Van Brunt, of Kansas City, chairman of the standing committee, read an extended report (printed on page 35).

The subject of Mr. Van Brunt's paper proved the most interesting topic brought before the convention and was generally discussed.

Moved by Mr. Yost that the report of the committee be accepted, placed on file, and that the committee be directed by the Institute to communicate with the several schools in existence in this country in regard to carrying out the ideas presented by the chairman in this excellent paper.

George B. Post: Mr. President and Gentlemen,—While I sympathize most entirely and heartily with my old friend Mr. Van Brunt in his feelings with regard to the matter of the development of styles, it seems to me that it would be very unwise for the Institute to place itself on record in endeavoring to induce the management of the great architectural schools of the country to pursue the course which he recommends toward accomplishing this result. There is no maxim more true than the old, worn-out "*Ars longa, vita brevis*," and this is particularly so in architecture. The schools of the country bear about the same relation to the practice of architecture that the elementary and primary schools to which children go, or a school that is to prepare them for college, bears to the college education of the country. To attempt the high class of artistic architectural education which Mr. Van Brunt thinks so desirable—which we all think so desirable—in these elementary schools would, in my opinion, be a radical blunder. I have had during my brief career very many young men from several of the great technical schools in my own employment and in my own office, many of them young men of distinguished ability; several of them have become since that time distinguished architects. At the time that they came to my office from the schools they were children as far as art was concerned; they had been simply taught the rudiments, and, in my opinion, in order to teach the rudiments you have got to rub into them the principles of classic art. The sort of education that Mr. Van Brunt is after might well go on in a course which would last for about two or three hundred years. Every architect in this room will feel, I know, that he is learning every day of his life; and that, in order to realize his own conception of what he ought to do as an architect, he would have to live to be about ten thousand years old. Now, to attempt to take young men of sixteen or seventeen years old and introduce them to a school and give them this whole artistic development, it is a manifest impossibility. You have got to teach them what good things have been done in the past, the general principles of design, and they will work out their own artistic salvation after they leave their school. I move, sir, that this resolution be altered, and that the secretary of the Institute be simply requested to send to the direction of each school of art a copy of the report made by Mr. Van Brunt, and without any recommendation.

Seconded by L. de Coppet Berg.

Mr. Berg: Like Mr. Post, we have had a great many young men in our office from these schools, and it has been our experience that the schools give quite time enough to the question of style. In fact, they make them such slaves to it that they are afraid to draw a line, almost, or an elevation, without getting from twenty to thirty photographs at the school first. I think the schools should pay attention to a great many other points; they ought not to stop at that of style.

Mr. Van Brunt: In regard to that part of my remarks which related to a suggestion of the action of the Institute, I recognize the extreme difficulty of dealing with the topic. But when the paper suggested that the Institute should take, sooner or later, some action to make this proposition definite in the schools, I had no idea of imposing upon the committee or the school any very difficult or any very exalted system of learning. My only point was that in the curriculum of the school there should be included an analysis of the styles in their development from archaeological to modern times; in fact, that they should learn history by its monuments—surely not a difficult task to do in outline, and surely, while the seed is being planted; if there is any virtue at all in the remedy which is suggested by this report, it should be planted in the beginning and not later. This report is more in the nature of an inquiry. I do not think—I hardly dare to believe—that the project that I offered is a practicable one, but I believe it is worthy of very serious consideration, and I hope that before this convention closes it may see its way to adopt some form of action, some form of procedure, which shall make practicable the main objects which this paper has in view. I do not propose to overload the pupils or the schools with new learning or with learning far beyond their capacity; far from it. I believe it to be entirely practicable, within the limits of the school and within the limits of their time of education, to make this vastly important addition to their lines. In the schools of architecture the history of architecture is taught—in every school. I propose simply to have the history of architecture properly taught. That covers the whole point of the question; that it should be properly taught always.

Mr. Yost: Mr. President, I now make the motion in this form: I move that the report of the committee be accepted, placed on file, and that the committee be directed to communicate with the several schools in existence in this country in regard to the ideas presented by the chairman in this excellent paper. It simply strikes out the words "carrying out" from the original resolution.

The motion was seconded and carried.

The subject of the amendments to the by-laws was then taken up, and the amendments as presented by Mr. Kendall of the Executive Committee read. A report from George B. Ferry, of Milwaukee, chairman of the Committee on Revision of the By-Laws was read, as follows:

MILWAUKEE, October 12, 1894.

Alfred Stone, Esq., Secretary of A. I. A., Providence, R. I.:

DEAR SIR,—Your Committee on the Revision of the Constitution and By-Laws have to report that such suggested changes as have presented themselves to their attention have already been referred to the proper officers of the Institute, and are incorporated with such other material as they deem advisable to present for the consideration of members in the circular issued by them September 8. I trust I may personally be allowed again to express the opinion which I have held since the reorganized Institute came into existence, that the mere matter of numbers was most important in connection with the efficiency and influence of the Institute, and while we might all regret that it might tend to lower the standard, its importance is too great to be ignored. Aside from this, our present qualification for membership practically debar many whom we cannot afford to be without, but whose location is such that they would be either unwilling, or it would be impossible for them to be members of Chapters as now required. I therefore trust that the proposed change, which in the before-mentioned circular will be found in the first paragraph, marked Section 2, under No. 10, on page 2, will receive the approval of members of the Institute.

Yours truly,

GEORGE B. FERRY.

The Secretary: The clause referred to in "I therefore trust that the proposed change, which in the before-mentioned circular will be found in the first paragraph, marked Section 2, under No. 10, on page 2, will receive the approval of members of the Institute," is as follows:

SECTION 2. A practicing architect whose professional office is at a greater distance than twenty-five miles from the headquarters of any Chapter may apply, in the manner heretofore prescribed, and become a member of the Institute without first becoming a member of any Chapter, and being approved by the officers of the same; but he shall become a member of a Chapter whenever one shall become available within the said limit.

The convention here adjourned until 2 P.M.

The convention was called to order at 2 P.M. by the president, who called for report of the Committee on the Conservation of Public Buildings, Mr. R. M. Upjohn, chairman.

REPORT OF THE COMMITTEE ON THE CONSERVATION OF PUBLIC BUILDINGS.

A short time since I was notified by the secretary of the Institute that a report would be acceptable from the chairman of the Committee on the Conservation of Public Buildings. Really, all that the committee can do is to remark on what they know of passing events as affecting public buildings belonging to the Government, and if anything derogatory to the cause of art is liable to happen, to report to the Institute, so that the Institute in its collective capacity may do what they can to ward off, if possible, the desecration or demolition of public monumental architecture, and that they under proper advisement may recommend, when opportunity occurs, what changes or adornments should be made to such monuments to make them more interesting, and perhaps more complete, adorning them with sculpture, and providing for other needs as may be presented.

The building which I would particularly remark upon is the present customhouse, in the lower part of Wall street, New York; seen as it is in perspective, from the corner of Broadway and Wall street, it is the largest and most monumental structure in the street.

It is built of Quincy granite, in the Greek Ionic order, has a frontage extending from William street to Hanover street, a length of about 200 feet. This building was completed about 1836.

It appears to be two stories high, two-thirds of the building along the front is utilized for a basement story, which is of massive construction. While its four massive bays are occupied for the entrances to the main floor, the rotunda and the portico, by flights of steps and landings between pedestals made of cyclopean blocks of granite—these, with the piers of the basement story, support the colonnade and portico above. The shafts of the columns of the portico are monoliths, eighteen in number; they are thirty-three feet high, are properly proportioned and cut. Each has a carefully molded cap and base. All the details of the building are well considered, and throughout there is the perfection of material and workmanship. Piers and groined arches of masonry support the floors and ceilings of the rooms of the building, and they are as everlasting as the hills. The main features of the building, which are few and grand, give to it great power, which is not obtained in the modern office building.

The portico is the grand feature. The inclosure formed by the portico, with its walls, colonnades, entablature and grauita-coffered ceiling, alone form a grand monument—already built. I do not know of its equal in the state. I would suggest that its walls and spaces be appropriated for busts, sculptured panels, friezes depicting historic scenes, and that at proper intervals the floor spaces be occupied by pedestals for statues of departed heroes—all selected and located under proper direction. This opportunity for furthering the cause of art, in completing this architectural monument, should not be neglected by this generation.

The government can easily afford to memorialize at least the most conspicuous of those who have given their lives for its existence, not only in civil life, but in the field, and what more appropriate place could be found for some of them than in this monument, located as it is in this metropolis of America? One of the reasons why this building has been particularly referred to is because its existence is threatened—it is offered for sale. This matter is referred to in the report of the Supervising Architect of the Treasury Department of the United States of 1893, which reads: "Inasmuch as efforts (of sale) in this direction have not been successful, it would seem that further legislation is necessary."

Up to this time nothing has been done in the matter of expunging the name of John Frazee from the walls of the New York sub-treasury building and substituting the name of William Ross, who was the architect of the building, on the wall; also when authority for the work to be done has been afforded by the government. I would recommend that the Institute be at the expense of it. The late Supervising Architect was supplied with all of the details as to why this should be done, having been furnished with a copy of our report made to your body in 1892, and before he resigned his office he wrote me that he had placed the whole matter, with the documents, before the Secretary of the Treasury, hoping that he would act favorably to our views. I would further suggest in the same direction that the name of Isaiah Rogers, architect, be appropriately cut on the wall of the present customhouse. He was the architect.

In anything that I have said in connection with the present customhouse, I do not wish it to be understood that I approve the attic story of the building, which was added about 1862.

All of which is respectfully submitted.

R. M. UPJOHN, Chairman of Committee.

The report was accepted and placed on file.
The entire afternoon was occupied in discussing the amendments to the By-Laws, but until revised by the secretary the result cannot be accurately printed.

At 8 P.M. the convention reassembled, Second Vice-President. Levi T. Scofield, of Cleveland, in the chair.

A large assemblage listened to Mr. Russell Sturgis, of New York, who read an instructive paper upon "Modern Style Founded upon Ancient Greek Architecture," which will be printed in a future number.

The following telegrams were received :

D. H. Burnham, President :
Regret inability to attend convention. Detained here at Newport by bad cold.

NEWPORT, R. I.
R. M. HUNT.

D. H. Burnham, President :
Illinois Chapter, at its annual meeting and dinner, forty members present, sends loyal greeting to the American Institute of Architects in convention assembled, and trusts that its deliberations will be characterized by discretion, wisdom and good-fellowship.

CHICAGO, ILL.
WILLIAM W. CLAY, President.

After remarks upon the subjects of Mr. Sturgis' paper by Mr. Van Brunt, "Wind Pressure on High Buildings," by W. L. B. Jenney, of Chicago, and a paper by J. W. Vost, of Columbus, on the "Evolution of American Architecture," the session adjourned.

The morning session of the second day assembled at 10:30 o'clock, First Vice-President George B. Post in the chair.

The secretary stated that no meeting of the joint committee upon Uniform Contract had been necessary during the year, but Chairman Treat reported an increase in demand of fifty per cent upon the preceding year and that it was evident that the contract blank was more favored by builders than architects.

The chairman called for the report of the Committee on Competitions, and asking Second Vice-President Scofield to take the chair, read the report of the Committee on Competitions.

On motion by Mr. Post the directors were requested to reappoint the Competition Committee, with instructions to prepare a code for adoption embracing the views expressed in the report.

A communication from John M. Carrère, recommending amendments to the schedule of charges, was read and discussed, and these—being similar to those recommended in the report—were adopted and ordered added to the published schedule of charges. The amendment to the schedule is as follows (note the parts altered or added are shown in italics) :

For full professional services (including supervision) FIVE PER CENT upon the cost of the work.

In case of the abandonment or suspension of the work, the charge for partial service is as follows: Preliminary studies, *as per table at the foot of schedule*; preliminary studies, general drawings and specifications, two and a half per cent; preliminary studies, general drawings, specifications and details, three and a half per cent.

Competitions.—Competitions will be entered into only for works for the Federal, State, Municipal, County or other public buildings, provided that they shall be conducted under the direction of at least one expert adviser, and will be judged by at least three expert judges whose duty it shall be to select the four best drawings, and place them in the order of their merit; the expert and judges being selected either by agreement with the majority of the competitors, or from a list to be furnished by the American Institute of Architects, or its local Chapter; and provided that the authors of all four designs thus selected shall receive full compensation for preliminary sketches as above noted, and if the work is executed, that the author of the accepted design will be guaranteed his employment in accordance with the schedule of minimum charges of the American Institute of Architects. The four selected designs are to remain the property of the architects, and are not to be used beyond the preliminary stage, without further compensation. All other drawings to remain the property of the architects, and not to be used, in part or in whole, without fair compensation, to be established by the expert. The expert and judges to receive a fair compensation for their services.

NOTE.—No changes in the schedule beyond this point, excepting the addition of the table below.

SCHEDULE OF CHARGES FOR PRELIMINARY STUDIES.			
Minimum charge, \$50.			
For works costing from \$5,000 to \$50,000, one per cent of proposed cost.			
For works costing from \$	50,000 and under \$	75,000.....	\$ 550.00
"	"	75,000	" 684.60
"	"	100,000	" 790.50
"	"	150,000	" 968.10
"	"	200,000	" 1,118.00
"	"	250,000	" 1,250.00
"	"	300,000	" 1,369.00
"	"	350,000	" 1,479.00
"	"	400,000	" 1,581.00
"	"	450,000	" 1,677.00
"	"	500,000	" 1,767.70
"	"	600,000	" 1,936.20
"	"	700,000	" 2,091.50
"	"	800,000	" 2,236.00
"	"	900,000	" 2,371.50
"	"	1,000,000	" 2,500.00
"	"	1,250,000	" 2,895.00
"	"	1,500,000	" 3,061.70
"	"	1,750,000	" 3,307.00
"	"	2,000,000	" 3,536.00
"	"	2,500,000	" 3,952.70
"	"	3,000,000	" 4,330.00
"	"	4,000,000	" 5,000.00

NOTE.—The rate is equal to 2½ times the square root of lowest cost.

The remainder of the session was largely taken up with the reading of papers, the most interesting of which was that upon "Emotional Architecture Compared with Classical," by Louis H. Sullivan, of Chicago (printed on page 32). The remainder of the programme included an excellent and comprehensive paper upon "Traveling for Architectural Study," by Frank Miles Day, of Philadelphia, followed by papers upon "Early Italian Church Architecture," by W. P. P. Longfellow, of Cambridge, Massachusetts, read by Prof. W. R. Ware; "The Barbarians of Italy," by C. A. Cummings, of Boston; and "Traveling Scholarships—What Work Must Be Done by the Student," by R. W. Gibson, of New York.

The following nominating committees were appointed :
William C. Smith, chairman, Nashville; L. de Coppet Berg,

Brooklyn; C. L. Stiles, Chicago; C. W. Fisher, Worcester; A. F. Rosenheim, St. Louis.

William S. Eames, chairman, St. Louis; J. W. Vost, Columbus; F. W. Angell, Providence; A. J. Boyden, Philadelphia; T. De Lemos, New York.

The evening session of the second day was devoted to an interesting paper illustrated by some excellent lantern slides upon "A Short Study of Greek Detail," by Thomas A. Fox, of Boston.

Thomas Hastings, of New York, read a paper upon "High Buildings and Good Architecture," which was followed by a general discussion of the subject of steel construction, led by Mr. Post.

The third day, final session, of the convention was called to order by President Burnham at 11 o'clock, about seventy-five members being present.

R. W. Gibson offered an amendment to Article X, Section 4, of the By-Laws, defining the term "practicing member." George B. Post moved an addition to the schedule of charges relating to the percentage for preliminary services.

A resolution, offered by Berg, was passed, calling for the appointment of a committee of five to consider the feasibility of direct proportionate representation of the Chapters in the Board of Directors, and to consider the advisability of their selection by the several Chapters instead of election by the Institute.

The president announced the committee upon Mr. Berg's resolution, as follows: L. de C. Berg, of Brooklyn, R. W. Gibson and E. H. Kendall, of New York, A. F. Rosenheim, of St. Louis, and L. H. Sullivan, of Chicago.

Henry Van Brunt made an explanation regarding that portion of his report upon education referring to the educational methods in architectural schools. The remarks in the report were rather in the nature of an inquiry, and did not pretend to give a specific remedy for the disorderly condition of educational methods. The committee did not intend to cast any reflection upon the conduct of the schools, but the convention should in some way express its deep concern in their future methods of education.

The reports of the nominating committees were presented, and the number of votes received by each candidate is as follows :

For president, Daniel H. Burnham, Chicago, 61; for first vice-president, George B. Post, New York, 64; for second vice-president, William S. Eames, St. Louis, 41; for secretary, Alfred Stone, Providence, 64; for treasurer, Samuel A. Treat, Chicago, 64; eight directors to serve three years—Louis H. Sullivan, Chicago, 36; George C. Mason, Jr., Philadelphia, 39; Theodore C. Link, St. Louis, 58; Samuel Hannaford, Cincinnati, 38; Charles A. Cummings, Boston, 45; Edward I. Nickerson, Providence, 39; C. J. Clark, Louisville, 29; John M. Donaldson, Detroit, 27; place of next meeting, St. Louis, Missouri.

For president, Daniel H. Burnham, Chicago; for first vice-president, George B. Post, New York; for second vice-president, Levi T. Scofield, Cleveland, 22; for secretary, Alfred H. Stone, Providence; for treasurer, S. A. Treat, Chicago; eight directors to serve three years—W. L. B. Jenney, Chicago, 43; T. C. Link, St. Louis; R. D. Andrews, Boston, 33; E. O. Fallis, Toledo, 27; O. G. Traphagen, Duluth, 18; T. D. Evans, Pittsburgh, 12; J. H. Coxhead, Buffalo, 26; Wilson Eyre, Philadelphia, 35; place of meeting, 1895, St. Louis, Missouri.

W. S. Eames, of St. Louis, and W. C. Smith, of Nashville—chairmen of the committees—were appointed tellers.

Mr. E. L. Ransom, of Chicago, read an interesting paper upon "Concrete Construction and Concrete as a Protection to Wrought Iron and Steel."

The secretary read a paper upon "The Electric Elevator in Relation to the Modern Office Building," presented by George Edward Harding.

Robert Stead offered a vote of thanks to the League and the Chapter for courtesies extended, which were heartily accorded.

The election by the board of directors of the following honorary and corresponding members was announced by the secretary :

Honorary Members—W. P. P. Longfellow, Charles H. Moore, J. S. Billings, Cady Staley, Thomas N. Ely.

Corresponding Members—S. M. Randolph, Prof. E. S. Morse, Montgomery Schuyler, Charles McDonald, W. Paul Gerhard, J. S. Walker.

The following officers and directors were elected :

President—Daniel H. Burnham, of Chicago.

First Vice-President—George B. Post, of New York.

Second Vice-President—William S. Eames, of St. Louis.

Secretary—Alfred Stone, of Providence, R. I.

Treasurer—Samuel A. Treat, of Chicago.

Directors for three years—Louis H. Sullivan, of Chicago; George C. Mason, Jr., of Philadelphia; Theodore C. Link, of St. Louis; Samuel Hannaford, of Cincinnati; Charles L. Cummings, of Boston; Edward I. Nickerson, of Providence; W. L. B. Jenney, of Chicago; Wilson Eyre, of Philadelphia.

Place of holding next annual convention, St. Louis.

William C. Smith, of Nashville, Tennessee, in behalf of the Nashville board of trade, presented a cordial invitation to the Institute to hold the convention of 1896 in that city.

The convention adjourned to meet in St. Louis, Missouri, in 1895.

Following the last session of the convention, the Builders' Club, of New York, gave an informal reception to the architects, at which they were entertained most royally. A number of architects and others were the guests of W. F. Donovan, at the New York Club. The dinner was creditable to that famous club, and many incidents which contributed to the evening's enjoyment will long be remembered by those who participated.

OUR ILLUSTRATIONS.

Houses, Chicago.
 Residence. Manly N. Cutter, architect, New York.
 Hotel Cadillac, Detroit. John Scott & Co., architects.
 Store Building, Cleveland. C. F. Schweinfurth, architect.
 Farm House near St. Romein. E. C. Jensen, del., Chicago.
 Armory Building, Cleveland. C. F. Schweinfurth, architect.
 Residence, St. Louis. Peabody, Stearns & Furber, architects.
 Design for residence. E. G. W. Dietrich, architect, New York.
 Residence of Stewart Spalding, Chicago. J. K. Cady, architect.
 Residence of A. B. Towers, Chicago. George W. Maher, architect.
 Telephone Exchange Building, Detroit. Gordon W. Lloyd, architect.
 Dining Room for V. A. Wilder, Warwick, New York. E. G. W. Dietrich, architect, New York.
 Rural Sketches, Cobb's Tavern, Canton, Massachusetts. E. Eldon Deane, del., New York.
 Interior view, Third Presbyterian Church, Rochester, New York. Orlando K. Foote, architect.
 Rendering from Photographs: Medici Gardens; Colonial Gateway at Westover, Virginia. John A. Rogers, del., Chicago.
 Photogravure Plate: Residence of Architect Myron H. Church. Church & Jobson, architects, Chicago.

PHOTOGRAVURE PLATES.

Issued only with the Photogravure edition.

Conservatory of George M. Pullman, Chicago. S. S. Beman, architect.
 Residence of W. H. Reed, Chicago. Beers, Clay & Dutton, architects.
 Residence of F. R. Barnheisel, Chicago. De Witt Taylor Kennard, architect.
 Residence of Dr. Frank S. Johnson, Chicago. Shepley, Ruten & Coolidge, architects.
 Residence of Professor McLaughlin, Chicago. H. Langford Warren, architect, Boston.
 Callahan Bank Building, Dayton, Ohio. Williams & Andrews, architects. The building is fireproof construction. The first three stories are of Massachusetts pink granite and the upper stories of Berea sandstone. Halls and vestibule and bank rooms are wainscoted with marble and laid with marble mosaic floors. The basement floors are of marble tile. Cost of building is \$100,000.
 The Tamalpais Apartment Building, Chicago. Ernest Flagg & Walter B. Chambers, architects, New York. Style, Italian Renaissance. A large interior court gives outside light to every room. The first story of the exterior is of buff Bedford stone, and above that a fine pressed brick, pink in color, is used, the whole being surmounted with a sloping roof of bright red circular tile. Cost, \$115,000.

SYNOPSIS OF BUILDING NEWS.

Architects are invited to furnish for publication in this department monthly or occasional reports of their new work before the letting of contracts. Reports of buildings costing less than \$5,000 are not published.

Buffalo, N. Y.—Architect John H. Coxhead: For J. B. Craven, a two-story residence, stone and brick, all modern improvements; cost \$15,000.
 Architects Lansing & Burl: For George Gorham, a two-story frame residence; cost \$7,000.

Chicago, Ill.—Architect J. W. Keueval: For Messrs. Perham & Durbin, a three-story and basement flat building, 120 by 50 feet in size, to be erected at Forty-ninth and Atlantic streets; it will have a handsomely designed buff Bedford stone front, hardwood interior finish, mantels, gas and electric fixtures, the best of sanitary plumbing, electric bells, speaking tubes, etc.; the cost will be about \$110,000. Same architect has completed drawings for a two-story flat building, 25 by 45 feet in size, to be erected at Heushaw street near Garfield boulevard, for John Gee; the front will be of pressed brick and stone, the interior have hardwood finish, the modern improvements, mantels, gas fixtures, furnaces, etc.

Architect Thomas Kissack: For F. Hall, two three-story and basement residences, 50 by 30 feet in size, to be erected at Washington boulevard; to have Ashland stone fronts, hardwood finish, and mantels, gas fixtures, heating, etc.

Architect H. M. Hansen: For F. D. Turner, a four-story apartment house, 50 by 100 feet in size, to be erected at Wrightwood avenue near Clark street; it will have a front of pressed brick with stone trimmings, hardwood finish, all the sanitary plumbing, gas fixtures, mantels, etc.

Architects Diuiddie & Newberry: For R. Stebbins, a two-story flat building, 50 by 56 feet in size, to be erected at Austin avenue near Oakley avenue; the front will be of pressed brick with buff Bedford stone trimmings, have the interior finished in hardwood, mantels, gas fixtures, furnaces.

Architects Marston & Hotchkiss: For L. H. Jackson, a handsome, two-story residence, 28 by 55 feet in size, to be erected at Oak Park; it will be of frame construction, have stone basement, hardwood interior finish, mantels, gas and electric fixtures, hot-water heating, etc.

Architects J. F. & J. P. Doerr: Made plans for a three-story school, 50 by 88 feet in size; to be erected at the corner of Sixty-fourth street and Woodlawn avenue; it will have a pressed brick and stone front, slate roof, plumbing, gas fixtures, steam heating, etc.

Architects Jones & Stoddard: For D. M. Farson, five stores, to be erected at the corner of Western avenue and Monroe street; to be of common brick and galvanized iron, iron store fronts, plumbing, etc. Also made plans for a three-story flat building, 34 by 70 feet in size, to be erected at Jackson boulevard near Rockwell street; to be of pressed brick and stone fronts, have the sanitary plumbing, mantels, gas fixtures, electric bells, speaking tubes, furnace, etc.

Architect J. M. Van Osdel: Made plans for the Y. W. C. A. building, to be erected at Michigan avenue forty feet north of Eldridge court; it will be a handsome structure, 80 by 161 feet in size, seven stories and basement; the basement will be of stone and the remainder of pressed brick with terra cotta trimmings, hardwood finish, electric light, etc.

Architect Joseph Bettinghofer: For G. Young, a two-story, store and flat building, 24 by 65 feet in size, to be erected at Webster avenue; the front will be of pressed brick with blue Bedford stone trimmings, interior to be finished

in Georgia pine, have all the sanitary arrangements, gas fixtures, mantels, furnaces, etc.

Architects Elmendorf & Park: For H. L. Childs, a three-story, store and flat building, to be erected at Madison street near Sacramento avenue; it will have a stone front with copper bay window and cornice, all the modern plumbing, hardwood finish, mantels, gas fixtures, furnaces, etc. For F. Taylor, at Twelfth and West Fortieth streets, a two-story flat building; all improvements.

Architects Curtis & McDonald: For C. F. Hovey, two pressed brick front houses, to be erected at Marshfield avenue near Sixty-third street.

Architect A. G. Ferree: For D. Walden, a two-story, frame country residence, 42 by 38 feet, to be erected at Bear Lake, Michigan.

Architect W. G. Barfield: Making plans for a Congregational church, to be erected at Western Springs; to be of frame with stone basement, have plumbing, heating, etc.

Architect Charles Eppinghausen: For M. J. Burke, a three-story flat building, 50 feet front; to be erected at Forty-third street and Wabash avenue; stone front, hardwood interior finish and mantels, gas and electric fixtures, heating, etc.

Architect W. H. Milner: For the Illinois Screw Company, a factory, 175 by 75 feet in size; to be erected at Chicago Heights. For M. M. Brown, just started on another section of the three-story block of flats at Calumet avenue between Forty-seventh and Forty-eighth streets; there will be six buildings, three-story and basement, 120 feet front; to be of stone front, have hardwood interior finish, the modern plumbing, mantels, gas fixtures, etc.

Architects Hessenmueller & Meldahl: For William Anderson, additions to building at 668 North Leavitt street. For Antone Anderson, at 518 Evergreen avenue, a two-story double flat building, 22 by 75 feet in size; to be of pressed brick and stone front, have all modern improvements. For C. Hansen, at 717 Shober street, alterations—new front, etc. For Mrs. T. K. Russell, at Oak Park, additions to Plaza Lodge Hotel; three stories, 50 by 50 feet in size; steam heating, electric light, etc. For John Leseth, at California avenue near Adams street, a three-story store and flat building, 23 by 93 feet in size; to be of Roman pressed brick and stone front, have all improvements; cost, \$10,000.

Architect I. C. Zarbell: For M. D. Tamble, at Jackson and Quincy streets, a seven-story factory, 50 by 165 feet in size; to have a pressed brick and stone front, plumbing, elevators, etc.

Architects Hallstrom & Peterson: For E. A. Modene, a three-story apartment house, 50 by 57 feet in size; to be erected at Buckingham place near Wells street; to have front of pressed brick with buff Bedford stone trimmings, hardwood finish, mantels, gas fixtures, furnaces, etc.

Architects Bright & Burfeind: Making plans for the Evangelical Lutheran church, to be erected at Grand Crossing. It will be of frame construction with brick and stone basement, have Georgia pine interior finish, gas fixtures, heating, etc.

Architect T. C. Goudie: For F. W. Schaeffer, at Twenty-second street and Central Park avenue, a three-story store and flat building, 50 by 74 feet in size; to have a pressed brick and stone front, all the modern sanitary arrangements, gas fixtures, steam heat, etc.

Architects Brompton & Lawson: For A. W. Ring, a three-story and basement flat building, 46 by 70 feet in size; to be erected at 1736 and 1738 Buckingham place; to be of stone front, have hardwood interior finish, mantels, electric light, etc. For J. B. Fox, a three-story and basement flat building, 25 by 83 feet in size; to be erected at 553 Dearborn avenue; stone front, electric light, steam heating, etc.

Cincinnati, Ohio.—The condition of the building business is not such as to make contractors feel very happy, as their books are closed. Building permits showed a decided falling off both in point of numbers and values. The causes therefor are too well known to be mentioned again. Let us hope for better times, and in this connection I am glad to say, that a round of the architects exposes a healthful, hopeful outlook for the spring. Of the nature of the improvements, not much can be foretold as yet.

Architects S. Hannaford & Sons report as follows: For Mr. James M. Glenn (Cincinnati *Tribune*), a store building; materials: pressed brick and iron, elevator, steam, asphalt roof; size, about 50 by 90 feet; four stories high; cost not given. High school building at Hillsboro, Ohio; materials not stated, as well as cost; but will be complete in every detail. Town Hall at Danville, Kentucky; materials: pressed brick, steam, slate roof; cost, about \$8,000. Residence for Dr. R. H. Reemelin (Elm near Fourteenth streets), Cincinnati; materials: pressed brick, tin roof, furnace, grates, mantels, etc.; cost, \$10,000. Residence for William Scully; materials: pressed brick, slate roof, grates, mantels, furnace, stained glass, etc.; cost, \$9,000.

Architects Crapsey & Brown report: For Ninth Street Baptist Church a mission chapel; materials: frame, slate roof, furnace, gas, plumbing, stained glass, etc.; cost, \$3,500.

Architects Richter & Wessling report: For C. C. Long, care Eighth District School, Cincinnati, a residence; materials: pressed brick, slate roof, gas, plumbing, mantels, grates, furnace, stained glass, etc.; cost, \$5,000.

Architect A. O. Elzner reports: For himself, a residence, to be built of frame and brick, slate roof, gas, plumbing, furnace, stained glass, etc.; cost, \$4,000. A dwelling for Cassily C. Cook, Cincinnati; materials: pressed brick, slate roof, gas, plumbing, grates, etc.; cost, \$3,500.

Architects Brink & Kunz report plans for a flat for Mr. Philip Krug, Cincinnati; materials: pressed brick, slate and tin roof, wood and iron mantels, gas, plumbing, etc.; cost, \$20,000.

Architect Gustave W. Drach has prepared plans for a fine residence for Mr. Cesimer Werk, at Westwood, Ohio; materials: stone, slate roof, gas, plumbing, furnace, grates, mantels, stained glass; cost, \$20,000.

Architects Giannini & Moorman report: For Joseph Trevor, Cincinnati, two houses in Avondale; materials: frame, shingle roof, gas, grates, mantels, plumbing, etc.; cost, \$9,000.

Architects Boll & Taylor have prepared plans for a residence for A. Erkins, Seventh near Viue streets, Cincinnati; materials: buff brick, slate roof, furnace, grates, mantels, stained glass, gas, plumbing, etc.; cost, \$4,000.

Architect W. W. Franklin has prepared plans for a fine residence for A. Baum; materials: pressed brick, slate roof, stained glass, gas, plumbing, grates, mantels, electric fixtures, etc.; cost, \$10,000.

Architect S. S. Godley reports: For Charles Fleischman Company, at Riverside, Ohio, a large warehouse; brick and steel construction; cost, \$20,000. Also, for Joseph Freiberg, Cincinnati, a residence; materials: pressed brick, slate roof, hardwood finish, gas, grates, mantels, furnace, hot-water heat; cost, \$20,000.

Detroit, Mich.—Architects John Scott & Co.: For the Ireland & Mathews Manufacturing Company, a three-story brick factory building; size 40 by 120 feet; cost \$12,000.

Architect R. E. Raseman: For John C. Sheerer, a two-story double brick residence; to cost \$5,000. For the German Evangelical Lutheran Church Society, Ann Arbor, Michigan, an 80 by 100 feet church building, brick and stone, heated with blower system; cost \$30,000.

Architects Mortimer L. Smith & Son: For J. B. Wilson, a three-story brick factory; size 50 by 175 feet; cost \$12,000.

Architect George W. Meyer: For J. H. Leppee, a two-and-a-half-story brick and stone residence, on Lincoln avenue; cost \$70,000. For Miss Mattie Cooper, a brick and stone residence; cost \$10,000.

Architect E. A. Walshe & Son: For Mrs. Phil S. Chapoton, a two-and-a-half-story field stone residence, to be built on Sheridan avenue; size 32 by 48 feet; cost \$5,000.

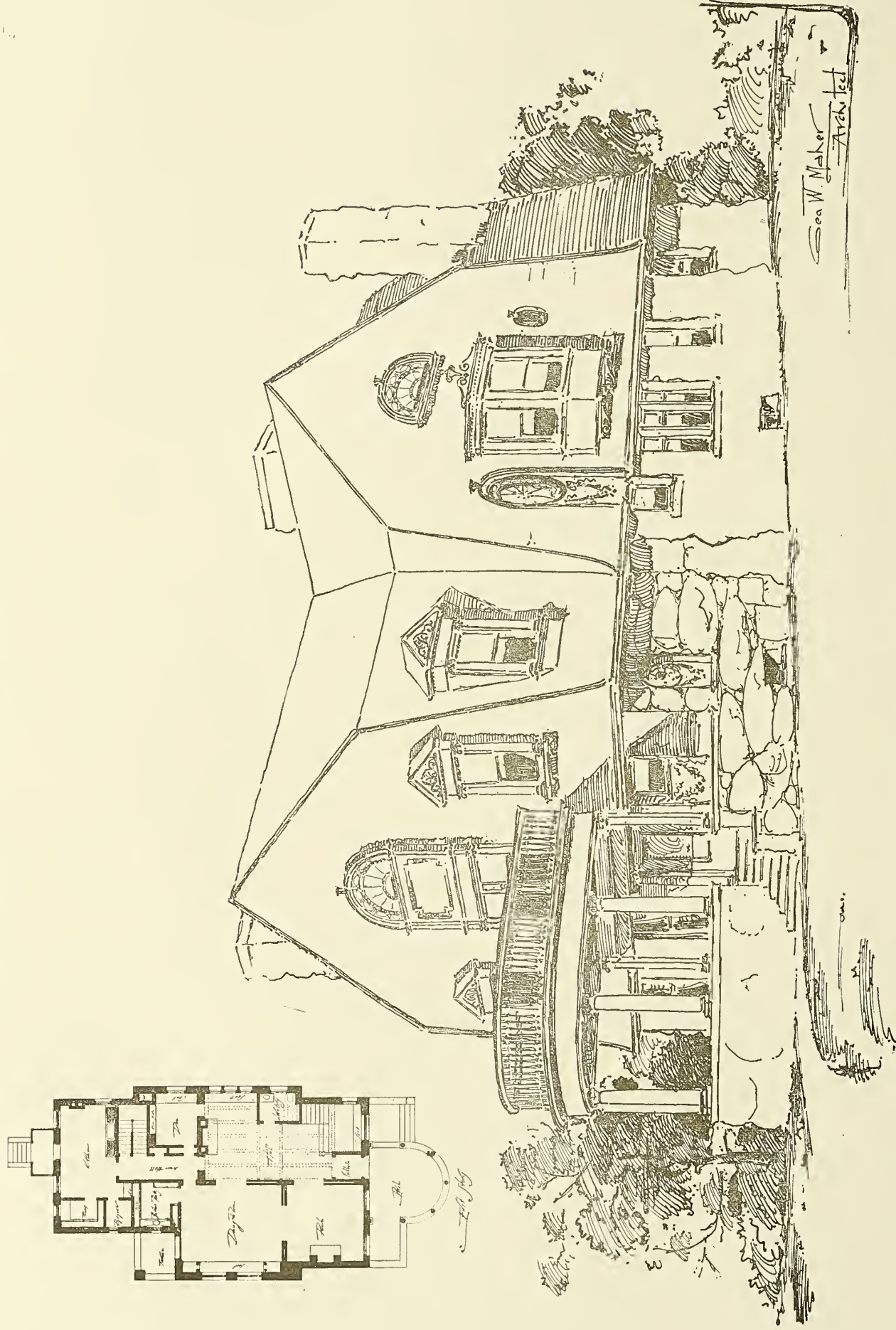
Architect Harry W. Chamberlain: For Henry W. Holcomb, a six-story brick and stone apartment building; size 48 by 103 feet; cost \$55,000.

Architect William S. Joy: For E. S. Dean, a two-story frame residence; to cost \$5,000.

Architect S. C. Falkenburg: For the United Presbyterian Society, a brick parsonage; to cost \$5,000.

Architect J. E. Mills: For E. Reynolds, a two-story brick and frame apartment building; to cost \$7,000.

Architect E. C. Van Leyen: For T. B. Sibley, a brick warehouse; size 25 by 80 feet; to be erected on Atwater near Riopelle street. The Third German M. E. Society will erect a brick church on Liveruols avenue near Michigan avenue; to cost \$6,000.



RESIDENCE OF A. B. TOWERS, CHICAGO.
GEO. W. MAHER, ARCHITECT.



ARMORY BUILDING, CLEVELAND.

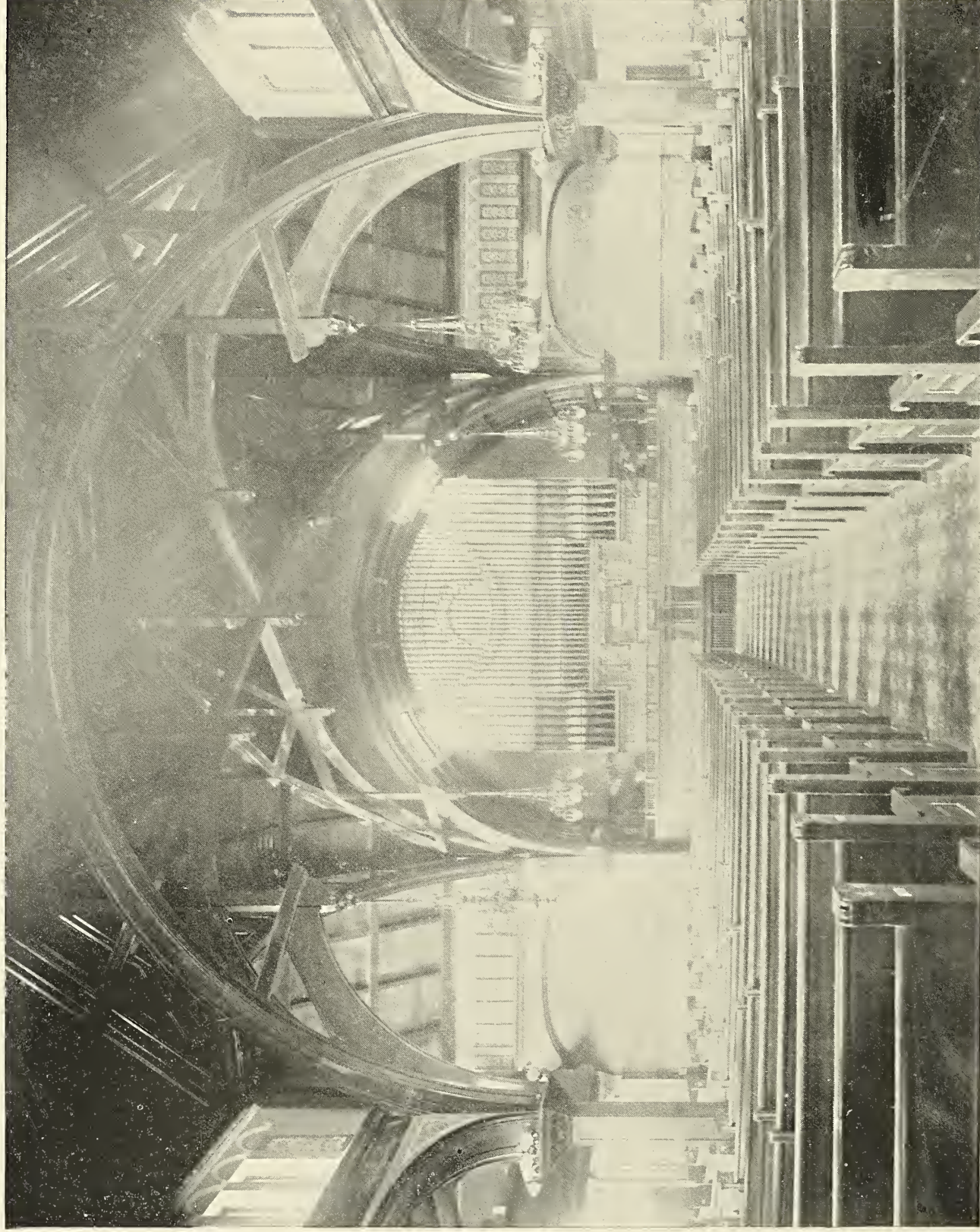
C. F. SCHWEINFURTH, ARCHITECT.



E. S. W. Dietrich

Dining Room for V. A. Wilder. Warwick, N. Y.

E. G. W. DIETRICH, ARCHITECT.
18 BROADWAY, NEW YORK



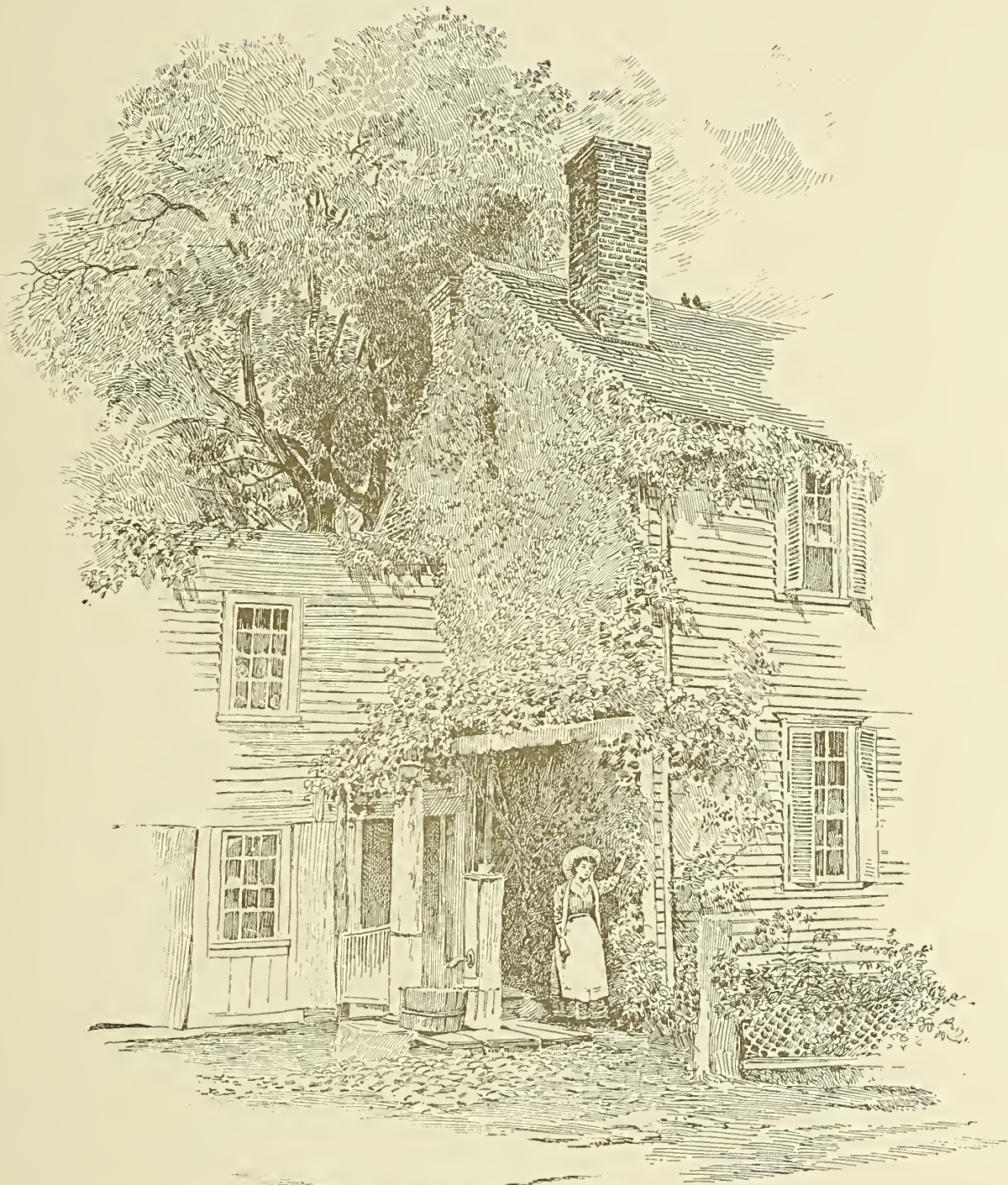
INTERIOR VIEW, THIRD PRESBYTERIAN CHURCH, ROCHESTER, NEW YORK.

ORLANDO K. FOOTE, ARCHITECT.



HOTEL CADILLAC, DETROIT, MICHIGAN.
JOHN SCOTT & Co., ARCHITECTS.

"Rural Sketches."



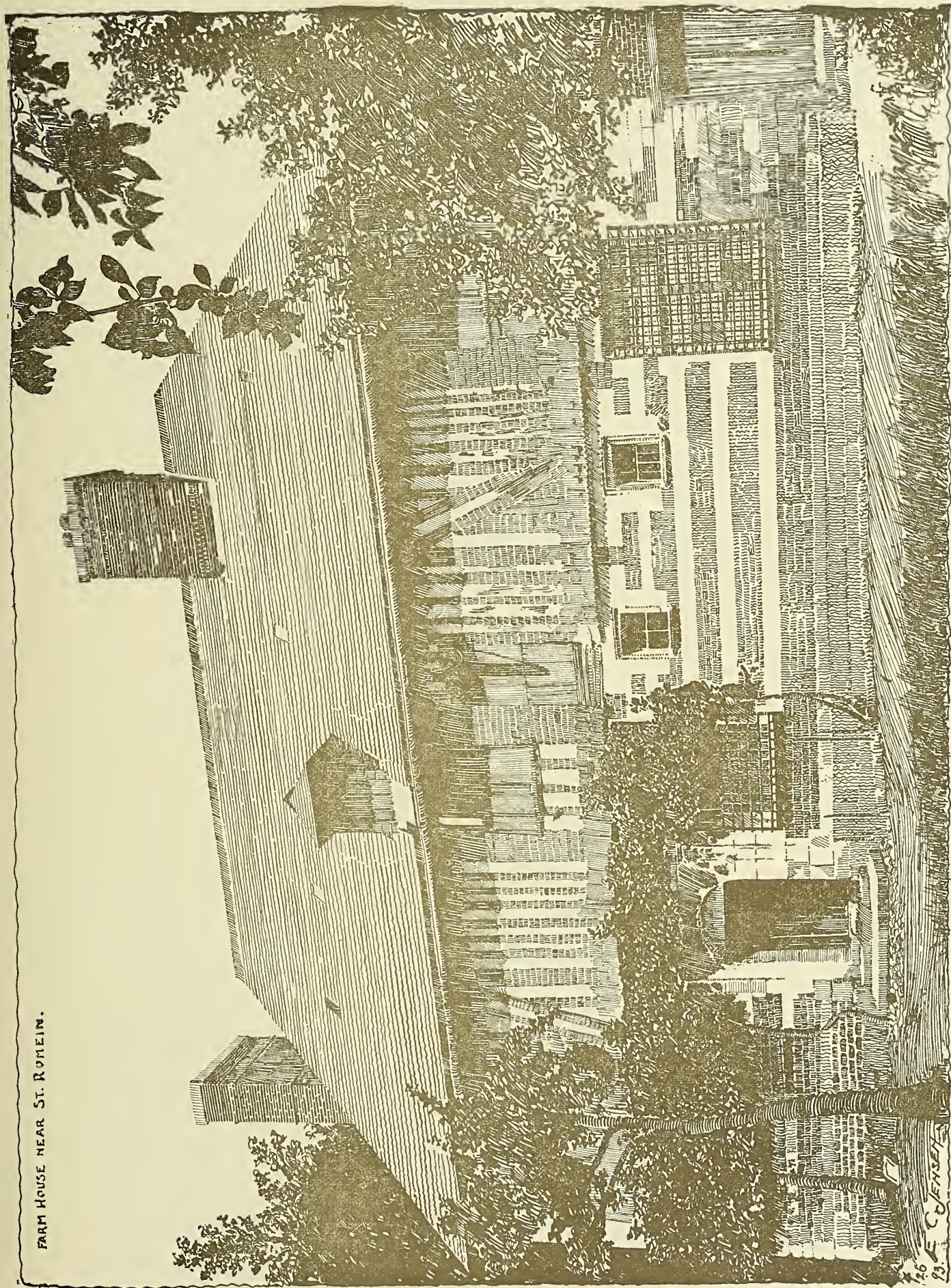
Cobb's Tavern
Canton, Mass.

E. D.

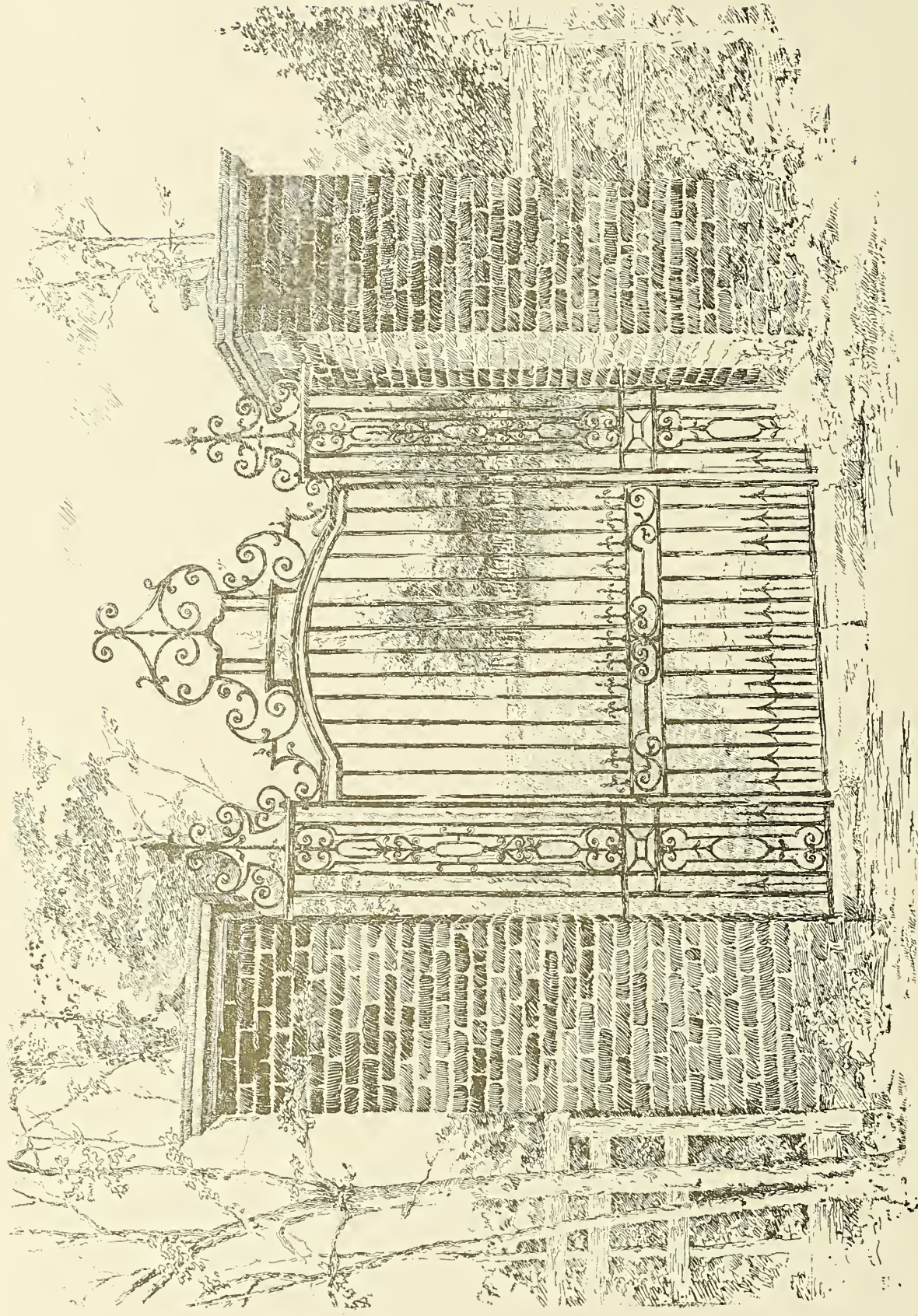


HOUSES, CHICAGO.

FARM HOUSE NEAR ST. ROMEIN.



126
F. C. JENSEN

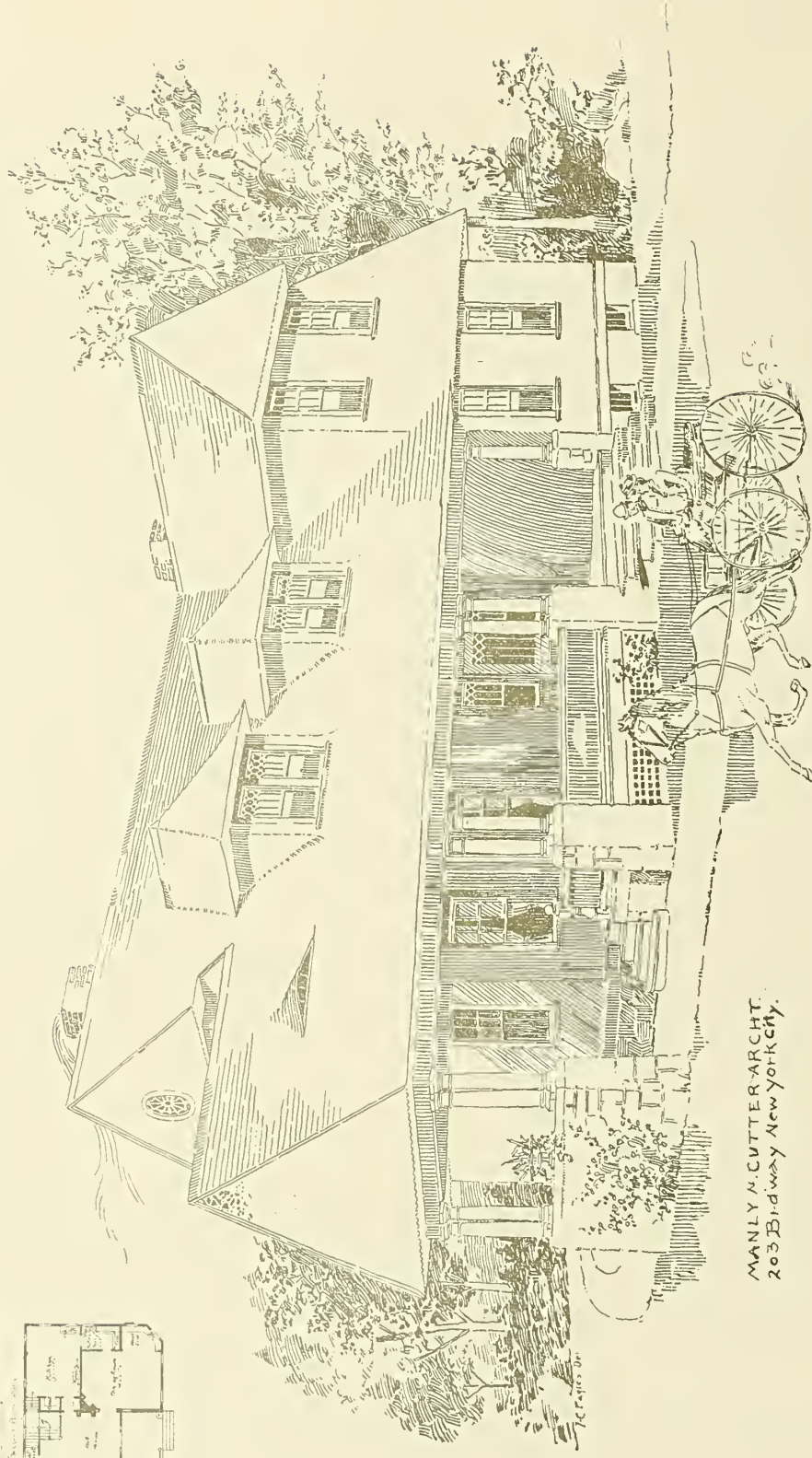
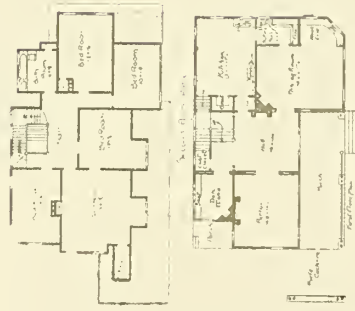


COLONIAL GATEWAY AT WESTOVER, VIRGINIA.
RENDERING BY JOHN A. ROGERS, FROM PHOTOGRAPH.



STORE BUILDING, CLEVELAND.

C. F. SCHWEINFURTH, ARCHITECT.

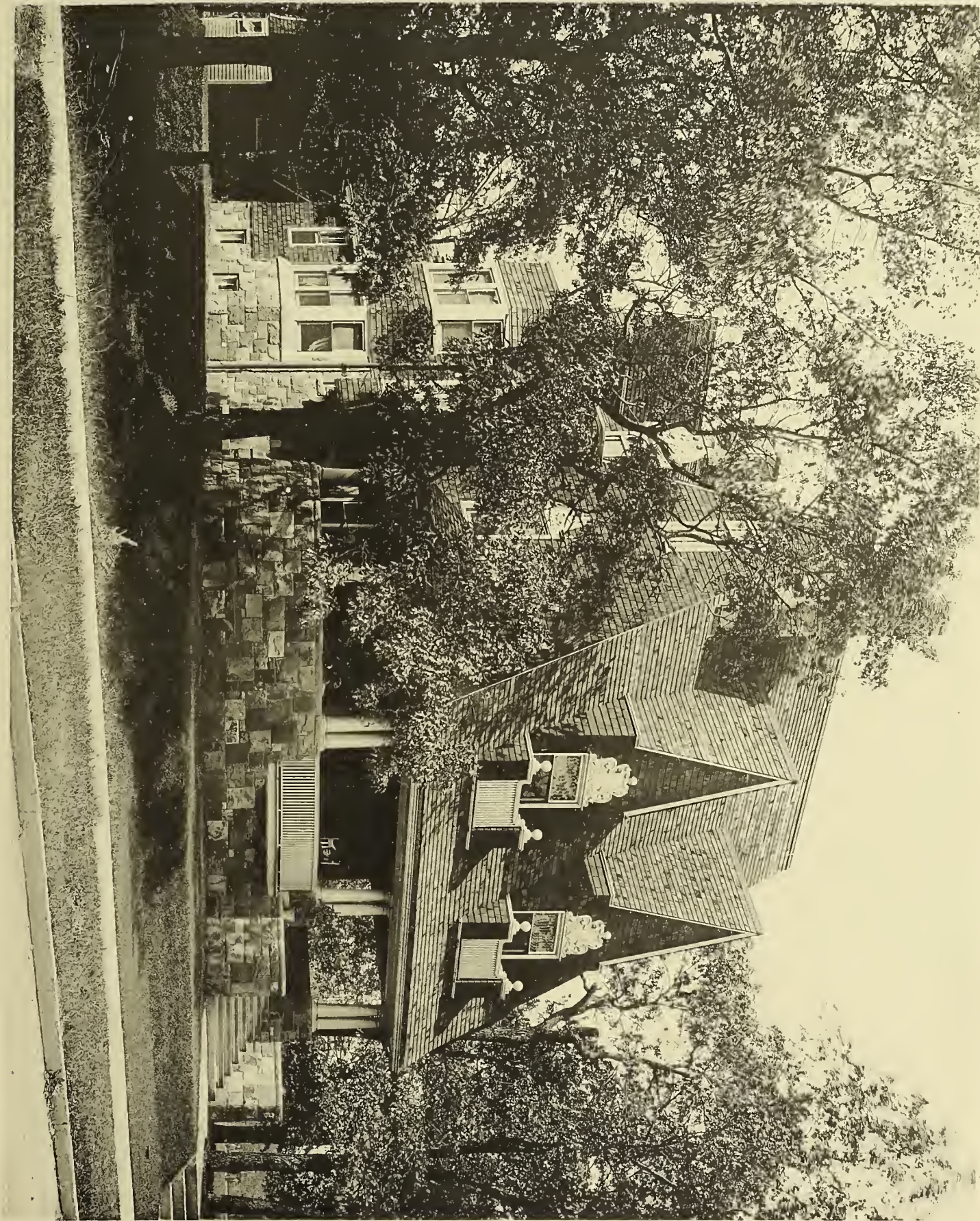


MANLY N. CUTTER ARCHT.
203 Broadway New York City.



RESIDENCE OF STEWART SPALDING, CHICAGO.

J. K. CADY, ARCHITECT.



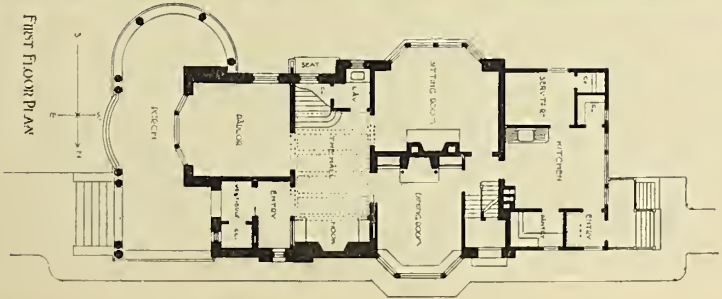
RESIDENCE OF ARCHITECT MYRON H. CHURCH, CHICAGO.

CHURCH & JOHNSON, ARCHITECTS, CHICAGO.

INLAND ARCHITECT PRESS.



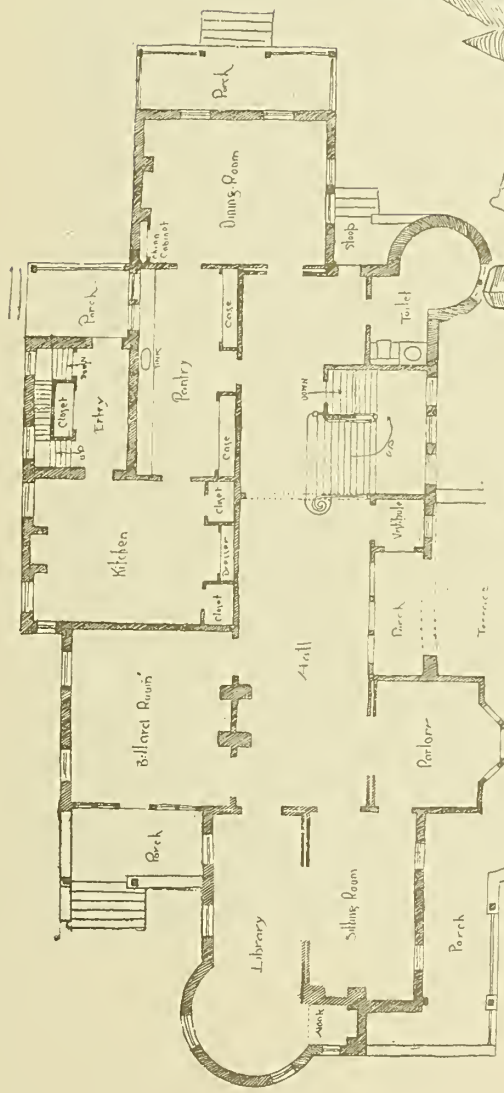
SECOND FLOOR PLAN



FIRST FLOOR PLAN



RESIDENCE, ST. LOUIS.
PEABODY, STEARNS & FURBER, ARCHITECTS.

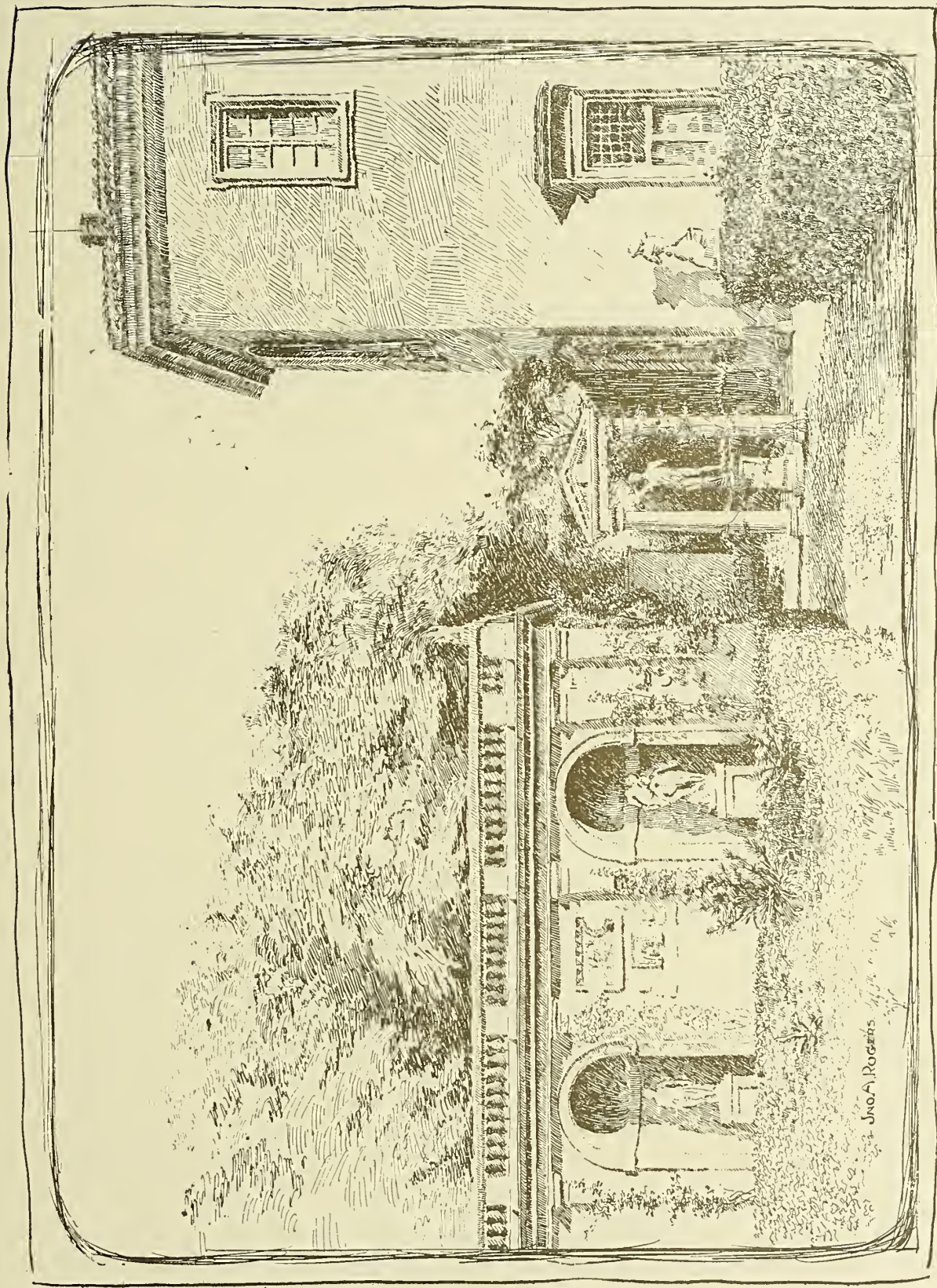


— First Floor Plan —





DETROIT TELEPHONE EXCHANGE BUILDING.
GORDON W. LLOYD, ARCHITECT.



VIEW IN THE MEDICI GARDENS
RENDERING BY JOHN A. ROGERS, FROM PHOTOGRAPH.

THE INLAND ARCHITECT AND NEWS RECORD

Vol. XXIV.

DECEMBER, 1894.

No. 5



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IN THE WEST.

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to all alike, merit and availability only determining what shall be published.
Contributions appropriate to its pages are always desired.

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NOTE.—Officers elected enter upon their term of office January 1, and
continue until December 31, unless reelected, except in the case of Directors
for two and three years.

Architectural League Exhibition and Competition. The tenth annual exhibition of the Archi-
tectural League of New York, which opens
to the public on February 15, promises to be
the most complete and interesting of any
exhibition given by the league. Besides the architectural
drawings and those of decorative works, stained glass,
models of executed or proposed work and exhibits of
carving in stone, executed work in wood, bronze, wrought
iron, mosaic, glass and the textile fabrics and furniture
will be exhibited and form an important part in the dis-
play. Only such photographs as may be necessary to
explain an exhibit will be admitted, and on the whole
the endeavor will be to show complete illustrations rather
than a larger number of incomplete works. As this is
the principal architectural exhibition of the year, the
profession in the several cities should make a special
effort to be adequately represented, and the result should
form an index to the professional status of the country.
It has been too noticeable that the current architectural
exhibitions are too frequently given over to the artist in
stained glass or the upholsterer, and the best architects
too frequently unrepresented by their works. The pro-
fession has too few opportunities of placing itself in evi-
dence before the public to neglect so splendid an oppor-
tunity as that offered by the annual league exhibitions,
and this year it is hoped that a notable exception to the
general rule may be made in the direction of a full repre-
sentation of the best work of the year from all parts of
the country. The competition, which is announced on
another page, gives to draftsmen an interesting problem
not only in design but plan and construction, and is
worthy of the best efforts of the draftsmen. It is not an
improbable project, for it is notable that a large number
of the competitors in some of the recent competitions for
public buildings have been young men who are scarcely
beyond the age to which this competition is limited, and
in the study of this practical subject draftsmen will find
both interest and profit.

Assaulted Workmen in Chicago Strike Back. Any fair-minded person who has had an
opportunity to review the preambles and
declarations of principles of most trades
union organizations cannot fail to have been
impressed by the laudable character of the objects and
purposes as there outlined. Yet it is too notorious that in
practice an entirely different impression is given. In fact,
for twenty years the trades unions of the United States
have demonstrated by their action that a workman who
did not belong to their order had no right to earn a living,
and through the peculiar construction placed upon the
reading of our constitution referring to personal liberty by
the courts, they have been allowed to enforce this position
upon all who took exception to it. It has remained for
Chicago workmen to become tired of the law's inability
to protect them and to take their right of protection in the
pursuit of their calling in their own hands, and to kill
those who attacked them. It is time that this extreme
phase should enter into the labor situation. In Chicago,
where the action of labor unions in the building trades has
been most closely observed, the utmost barbarity has been
practiced for many years, and because few deaths resulted,

practically unnoticed. For years it has not been possible for a citizen to attempt to earn a daily wage without taking his life in his hands unless he first sought and paid for permission to work from one of these self-constituted leviens of blackmail and barons of industry. If a citizen was attacked in the streets and "slugged" and robbed, his assailant would be in a fair way of receiving a penitentiary sentence until it was shown that he belonged to a "union" and the complainant was a "scab," when "presto," the charge changes to disorderly conduct, and the thug is released on a suspended fine and the complainant, perhaps, fined for seeking to defend himself. This has been the common practice during strikes in general for years, the instances only varying where the thugs intimidated the man's family and boycotted him at his grocers, only stopping short of murder because that is a crime public sentiment would not excuse even for so laudable a reason as that the victim was a "scab." This supineness of public sentiment, without which this condition could not exist, has been aided by a large proportion of the daily press, which has too wholesome a fear of the "labor party" to even tell the truth. Some weeks ago when a thug, who was vice-president of a union, was killed while leading an assault upon a workman, only one of the daily papers of Chicago dared call things by their right names and say "a thug was shot by a citizen," while one almost as prominent called it a murder. A position that a grand jury held untenable, as it quickly released the man who had done his fellow-workmen so great a service as the removal of a representative "thug." Now a second workman has asserted his right to protect himself and killed another of this band of walking delegates, and he should not only be liberated as quickly, but given a medal for heroic conduct. For the terrible conditions under which the day laborer has pursued his calling has been but little understood by the public. The law has no greater control of the common thief than the labor union has assumed and held by intimidation and force over the workman who dares to refuse to contribute to its support. Of course, the heads of these unions deny collusion, and, of course, they are liars, which their statement that their members do not assemble around a building or attack workmen on their way home through the order of the union, but "as individuals," evidences, aside from the fact that they shield instead of prosecute the offender. It is time that the Civic Federation abandoned much of the "reform" work it is engaged in for saving the money of the rich, and took up the protection of the poor and honest citizen who only asks to enjoy liberty and the pursuit of his daily calling unmolested, a right which he is guaranteed by the constitution and is denied him. Meanwhile, let him bravely defend himself when attacked; and when a few dozen or hundred of these thugs are killed, the peaceable pursuit of his vocation may again be established, and such names as Burgiss and Kemperman be enrolled with those of the signers of the Declaration of Independence as heroes who reestablished freedom for the workingman. The merits or circumstances of the cases of the strike on the Marquette building, in which two thugs have been killed and over thirty workmen badly injured, we care nothing for. The injuries to workmen are only the common result of any revolt against a union and are occurring all the year round. It is the turning of the worm and the consequent howl of outraged society that brings this strike into notice. The union principle

is right; the practice, as demonstrated by almost every union during the past ten years, is that of a Mollie McGuire organization.

Industrial Revival and Trades Unions.

In anticipation of "an industrial revival within a year, which in activity will surpass that of any previous period," the labor unions of the country are urged by their leaders to place themselves in position to make demands for an eight-hour day, etc. This means that a notice to capital is sent out that it had better remain uninvested unless it intends to allow these self-appointed financiers to regulate its investment. The losses sustained by labor in the strikes of the past ten years are probably beyond computation, as are also the losses sustained by the individual capitalists. But the proportions are not comparative. Capital can seek other investment or lie idle, but the suspension or prohibition of production has its direct effect upon the producer. It is strange that these one-sided economists do not learn from the many disasters which have befallen them, and seek some other method than that of force to effect the reforms they claim are necessary. That recent strikes have ended disastrously for the unions engaged has not been because of the dominating strength of capital, but because the methods employed have not enlisted the sympathy of the public and are denounced by the better class of industrial people generally. For the past year every architect in our large cities accustomed to the designing of large buildings has had "upon the boards" projects aggregating from two to twenty millions of dollars. Four-fifths of the amount, should the work go on, would go for labor. The projectors are laboring daily to secure capital that this money may be expended; and yet those who will receive the greater benefit, with none of the labor of organization or the risk of loss, seem inclined to place every possible obstacle in the way of these millions being expended.

Minnesota State Capitol Competition.

There has been considerable speculation regarding the result of the competition for a capitol building for the state of Minnesota. On October 9 about fifty-six sets of plans were submitted. The report of the advisory experts, Edwin M. Wheelright, of Boston, and Henry Ives Cobb, of Chicago, has been submitted to the commissioners, but the decision has been delayed and probably will be for a month, and rumor says until spring. What may be done in the interim by these seven commissioners cannot be surmised; but it seems that if they intended to place a great degree of weight upon their advisers' report the award should be forthcoming. They are, however, all gentlemen of high standing, and it is probable that they wish to give so important a work as the selection of an architect for their state capitol all necessary consideration. It is unfortunate that the drawings were not submitted under noms de plume and that the experts' report was not made final, for the monumental character of the building should receive the first consideration, as it will probably be the most important, as well as costly building, erected in the Northwest for many years. It is regrettable that the well-defined plans for competition procedure outlined from time to time by committees of the American Institute are not adopted by municipal bodies as the basis of all requests for competition drawings. Where these lines were followed satisfactory structures have been obtained.

MECHANICAL HEATING AND VENTILATION.

BY M. C. HUYETT.

FIFTH PAPER.

MOTORS.

IN mechanical heating and ventilation, power of some kind must be provided for operating the fan. First cost of plant can be kept lowest by installing a steam engine; when this kind of power shall be used for fan propulsion in schools, churches and other public buildings, the steam cylinder should be of sufficient area to develop the required amount of power with steam pressure on the boiler at from fifteen to twenty pounds, with ordinary lineal travel of piston.

The horizontal type of engine, self-contained, with disk crank, is easiest to keep in adjustment; they should have an automatic stop variable speed governor, throttle valve, sight feed lubricator, governor belt, oil cups and wrenches.

An "automatic cut-off" is no advantage; the load is, practically, nonshifting.

Engines should be installed on substantial masonry foundations, built separate from other foundations or walls, if practicable.

When heating is required, a steam motor is next the cheapest power; the steam used for power should be used for heat production, and water—the result of condensation in the heater—be returned to the boiler, automatically, with the latent heat contained therein. Necessarily there will be some loss of water, from the boiler, due to the escape of vapor through the vapor

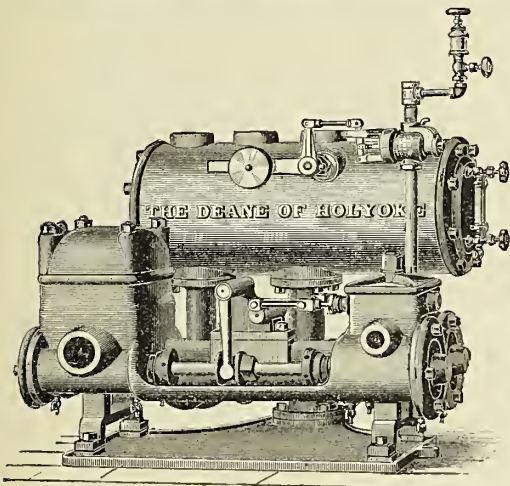


FIG. 4.
Automatic Pump and Receiver.

pipe leading from the receiver to outer air. When water shall be so returned it is an element of danger, because of cylinder oil making the water in the boiler liable to foam, and the additional liability of the boiler to be blistered or burned—either being simply a question of time; therefore an oil separator is indispensable, and should be placed in the exhaust pipe and preferably near the engine; this makes the application absolutely safe as regards the elements of danger stated.

Belt or rope transmission of power will prove most satisfactory and should invariably be used, except where space is too limited to get length of belt.

Electric motors are safe, convenient, controllable, and are usable for heating with lower steam pressure on a boiler than is possible when a steam engine is used, and can be used for providing ventilation when no steam for heat (no fire under boiler) shall be required.

Water Motors are simple and safe; their use is practicable where high water pressures are maintained.

Gas and Gasoline Engines.—The latter is the cheapest power known; when properly installed it is absolutely safe, is controllable, and when a proper "muffler" is used they are practically noiseless; their use makes ventilation possible without fire under the boiler when no heat shall be required. When they are used ALL water, the result of condensation in the heater, should be returned to the boiler automatically, thus saving the latent heat contained therein.

The cost for power can be based on $\frac{1}{10}$ gallon of gasoline per horse-power per hour.

Either of the three latter motors simplifies apparatus, increases safety factors, and adds to life of boiler and efficiency of apparatus.

PUMP AND RECEIVERS.

Installations of heaters can rarely be made so as to secure "gravity return" of water, the result of condensation; when that is impossible intermediary mechanisms must be installed between

the heater and the boiler. That illustrated in Fig. 4 is automatic, and with water-supply connection can be used for "boiler feed."

HEATERS.

Heaters are efficient in proportion to the equalization of steam pressure in the pipes and air contact with their surfaces—radiating surface.

Three types of heaters are in common use: one is the ordinary "box coil" construction; a second type is with pipes mounted part vertical and part horizontal, with each loop differing, in length of the three pieces of pipe, from that of any other loop in the same row, in the section. This type of heater is used by two manufacturers—the only difference is in the manifolding. The third and most efficient type of heater is that shown by Figs. 5 and 6.

Fig. 5 shows a two-row pipe section without the manifold connection; Fig. 8 a four-row pipe section without manifold, and Fig. 6 shows the make-up of a heater complete with manifold and steam connections. As applied in school and church buildings, the steam pipe A, with its connections B C, are omitted, that feature being essential only where exhaust steam is obtainable in addition to that of a steam motor used to operate the fan.

When electric or gas motor is used for power, exhaust steam inlet pipe D is made a live steam supply.

The principle in this heater is identically the same as that invented by M. C. Huyett in 1884, it has stood the test of ten years' use—many of the heaters having been used day and night more than three hundred days per year during that time and without repairs. The improvement consists in an abandonment of the "lock-nut nipple" connections to manifolds at both ends of the bases—or sections—and substituting flange connections to one manifold at one end of the sections only.

The pipes are all of equal lengths, mounted vertical, and staggered in sectional bases, the circulation being up one row of pipes and downward in the other row, the condensation from each draining down into a drip chamber and back into the outlet part of the manifold, and thence to a receiver; the friction is alike in all the pipes, hence steam pressure equalizes quickly and surely.

If repairs shall be required, any one section can be removed without unmaking other like steam joints, and any one pipe can be removed by unmaking its steam joints and those of its fellows; these are features not found in other heaters.

In these heaters each loop of pipe is made up with $33\frac{1}{3}$ per cent less number of steam joints than is common in other heaters; this lessens the liability of leakage and repairs. The sections are grouped in such manner that one, two or three parts of a heater

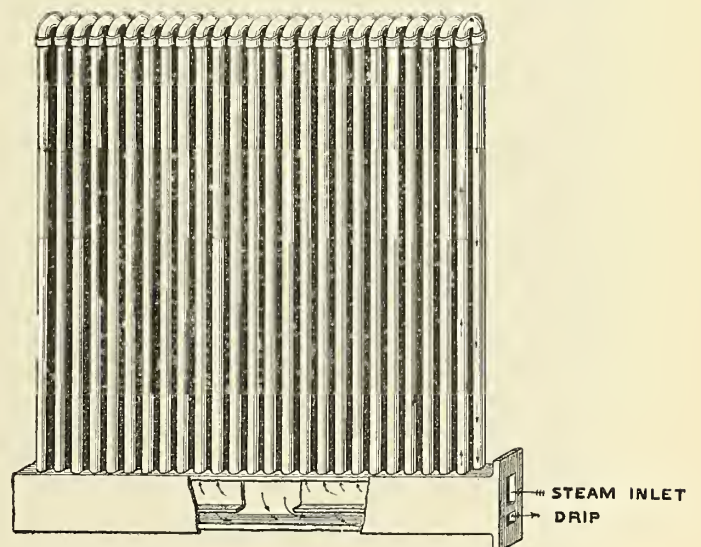


FIG. 5.
Heater section, with two rows of pipes.

can be used at will; this gives complete control of the initial temperature without increasing or decreasing steam pressure. The staggered arrangement of the pipes causes the air in its passage through the heater to be divided and subdivided and have contact with the radiating surfaces as many times as there are rows of pipe—from front to rear of heater—regardless of the temperature of the radiating surfaces, the pressure of contact being in proportion to the air velocity.

The completed heater is inclosed in a steel jacket in the customary manner, one end being open for the admission of air to be warmed, and the opposite end connected to the fan inlet; this provides apparatus for *exhausting* the air through the heater so that the fan handles the heated product.

It is true that heaters are installed with fans to deliver cold air and force it in contact with the radiating surfaces; when that is

secured without lessening the volume of ventilation; it is the ideal arrangement.

A two-pipe system, as ordinarily applied, makes necessary that the fan shall force the cold air—blow it—across the radiating surfaces, the heater being between the fan and the rooms to be warmed and ventilated, with a by-pass valve so arranged that air can be forced through the heater—in contact with the radiating surfaces—or over or under, without contact, and into cold-air ducts; branch pipes from the main warm and cold air ducts open into the base of heat risers, which open to rooms. The general principle is correct, but the application of fan to blow through the heater is poor engineering practice—it has resulted in numerous unsatisfactory plants and many failures.

The “unknown quantity” can be eliminated and a more positive application be secured by using two fans, one to deliver the warmed and the other to deliver the cold air to the heat-riser flues.

A better application is possible by using a triple fan (see Fig. 3), the duplex part to deliver warmed air, and the separated third fan to deliver cold air through a separate set of pipes to the base of heat risers.

Right angles, in air pipes, should be avoided.

AUTOMATIC TEMPERATURE REGULATORS.

There are several patented mechanisms for automatically controlling temperatures, individualizing rooms without lessening the volume of ventilation. The electric system is quick-acting—blows all hot

or all cold; the valves open and close alternately, with varying temperatures, will not balance between open and shut, thus making “tempering coils” NECESSARY.

The hydro-pneumatic regulator produces like results as the electric service, but is slower to start either way. Until it shall be tested on large work in order to demonstrate that its delicate

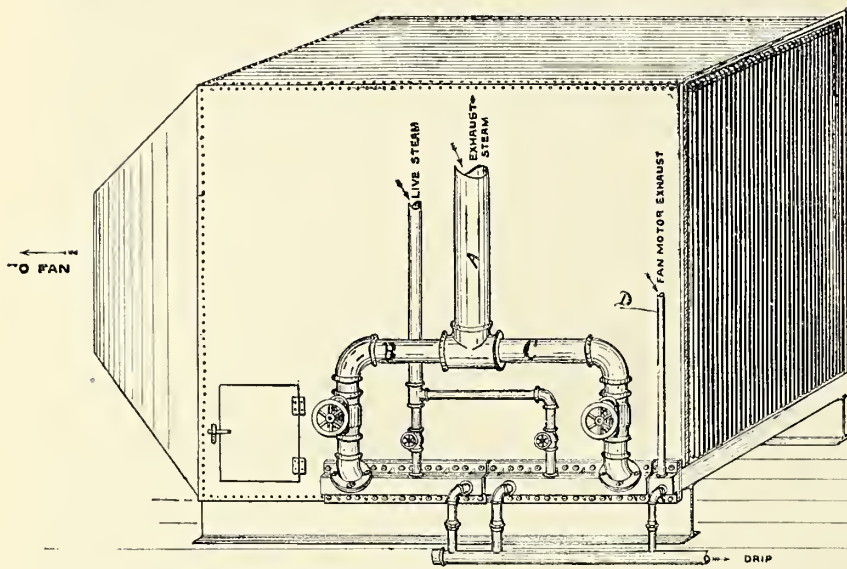


FIG. 6.

Heater complete, encased in steel jacket.

done the fan must overcome the friction of air in ventilating ducts, plus the resistance of air at rest in rooms to be warmed and ventilated, plus friction of air in the hot-air distributing pipes leading from the heater to the rooms, plus the resistance caused by a mass of pipes located immediately at the discharge opening of the fan. That kind of an application requires higher speed of fan, increases the power required, and adds to the cost of operating; in addition waste oil from journal bearings drains into the fan wheel and is thrown therefrom in contact with hot radiating surfaces upon which dust gathers, making, in time, unhealthful conditions, reducing efficiency, and causing a constantly increasing fire risk. It is claimed that “by blowing air across the radiating surfaces an increase in volume due to expansion is secured.” The claim is plausible, but not truthful; that element never forms a part of the mathematical calculation in making up estimates for heating and ventilating air volumes. Volume of air for heating and ventilation is based on lineal travel in air-distributing pipes and through openings therefrom to rooms, and a definite required quantity forms part of the calculation; if *expansion* shall be depended upon for volume the *quantity will be inconstant* because of the difference in heat force required to provide sufficient heating under the varying conditions of external temperatures.

With a fan *exhausting* across a heater it must overcome all of the factors stated in the first part of the foregoing paragraph except the resistance of the mass of pipes at the fan discharge; with this application atmospheric pressure forces the air through the heater in contact with its radiating surface and insures a more equal contact and higher efficiency of apparatus.

A given volume of air, only, can be forced through a given sized pipe, or flue, at a given velocity (velocity is the basis of all calculations); “air expansion” *never* enters into calculations, it is too infinitesimally small a factor upon which to base an argument.

AIR-DISTRIBUTING DUCTS.

Air ducts should be made of galvanized iron with longitudinal seams crimped and circular seams riveted and soldered.

For factories, some churches and some school buildings, a single-pipe system will meet all ordinary requirements, but to maintain the highest possible sanitary standard of air purity in schoolrooms a two-pipe system is indispensable; the mixing dampers for each room should be controllable automatically or arbitrarily from each such room; when arranged for automatic control a high order of intelligence, or carefulness, on the part of an engineer or janitor, is not a prerequisite for securing desired results; rooms can be individualized and equable temperature

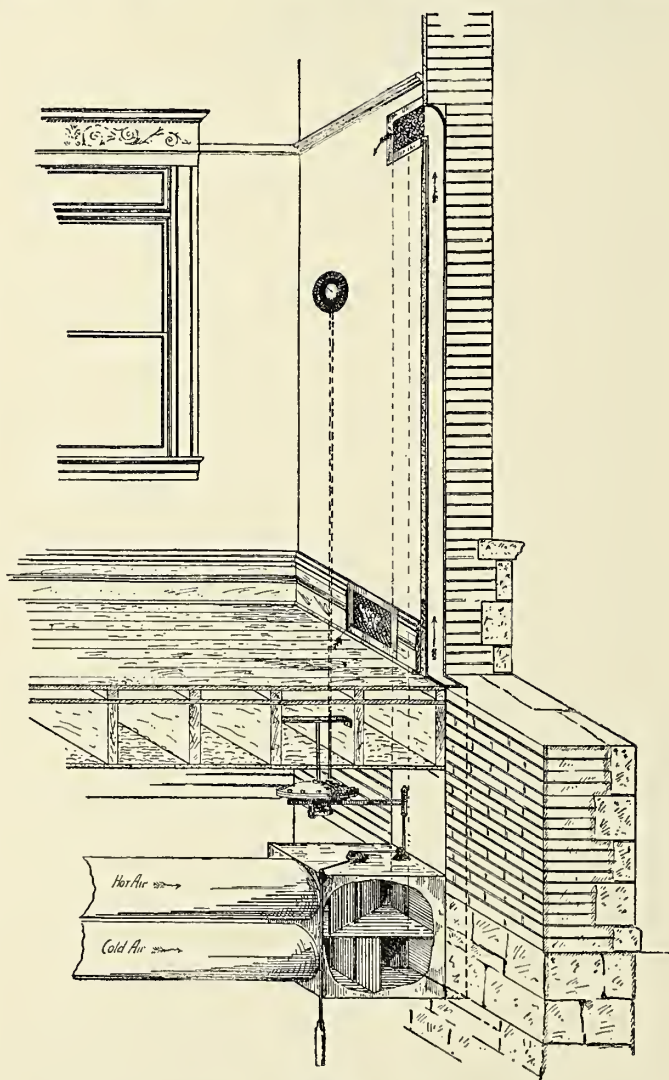


FIG. 7.

“The Powers” Automatic Temperature Regulator.

mechanisms will maintain their adjustments it must be considered as an experiment.

The Powers system, operated by vapor pressure, is, in my opinion, the most simple in its mechanisms, most durable, least liable to get out of working order, and most efficient; the valves will poise between extremes, as warm or cold air supply shall be required to maintain an equilibrium of temperature in connecting rooms.

Fig. 7 shows a warm and cold air pipe with mixing dampers or valves so connected that as one opens the other closes, a change of three or four degrees in the temperature of the room where the thermostat is located being required to fully operate them. If set at seventy degrees the hot-air damper commences to close at, say,

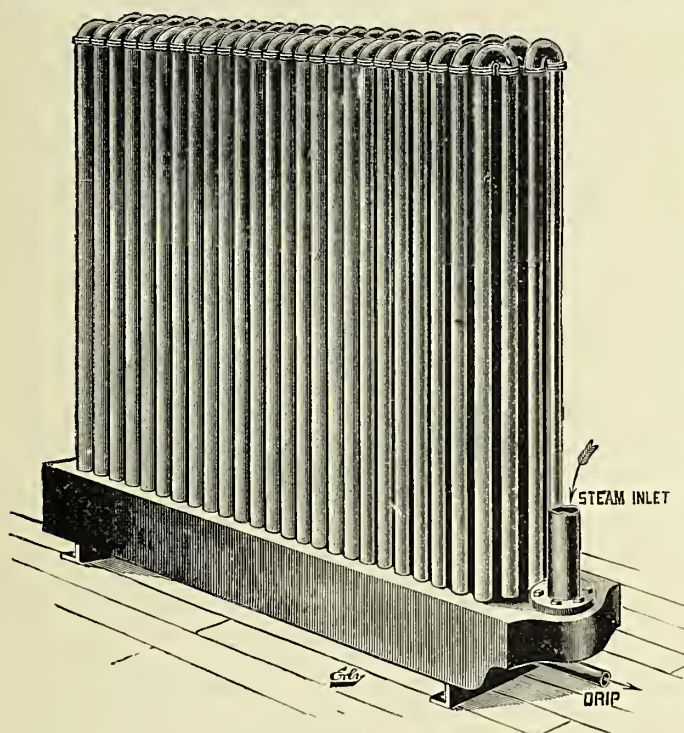


FIG. 8.
Heater section, with four rows of pipes.

sixty-eight degrees, the cold-air damper opening at the same time. Should the temperature rise to seventy-two degrees, the hot air will all be shut off and the full volume of cold air will be delivered into the room.

It is apparent that under ordinary conditions the temperature would cease to rise before reaching this point, as the dampers gradually moving change the relative conditions of the hot and cold air supply and a permanent temperature of about seventy degrees will result, the dampers both being partly open, and this without the necessity of any tempering coil, the placing of which entails extra expense.

When used with a triple fan, the volume of ventilation will increase when a room becomes slightly overheated.

(To be continued.)

THE PASSING OF GOTHIC ART.

BY CONRAD BRYANT SCHAEFER.

THE two preceding papers upon "Gothic Origin" and a "New Style of Architecture" may be considered preliminary to the present subject. They indicate the architectural point of view. The first article recommends the material origin of Gothic architecture. The attendant facts maintain the transmigration of ornament without substantial intercourse. The second article relates to the intellectual influences that accompany ornamental succession. In that respect the origin of Gothic art is undefined. Its influencing, or directing temper will be followed by the combined evidence of the world's conscious records termed history and the unconscious records called art. The course is pursued upon the basis that there is completion and reformation of progress at the coincidence of opposite growths. The matter is viewed in relation to character much as a handful of clay represents the process of geological formation.

The very origin of ornamental expression in man is taken to be, in the Hindoo, shelter for himself and pleasure in circular motions, like dancing; hence the arch. This is effeminate. In the Greek,

shelter for crops and pleasure in the labor of storing up; hence the column and lintel. This is masculinity. In the Hebrew, a wandering life, with limited accomplishments of both the above, under the guidance of dreams or visions. The shape of the tent expresses, like the pointed arch, both leaning columns and straightened circles. Three principles of character and construction are represented by the world's only three divisions of the Caucasian race. A fourth condition began its expression in architecture about eighteen centuries ago. It was the harmonious combination of all sorts and conditions of ornament and construction. By studying nature, i. e., construction, protection, use and convenience, and sticking to that first and embellishing with precedents afterward, the modern architect continues that development.

In beginning this review the reader will kindly excuse a reiteration of former statements.

Gothic art is a pictorial evolution of emotional expression. It is the result of a temper that swept the Middle Ages. The indolent Indian of Central America was apparently first aroused from his condition of apathy. His walls, covered with strange characters, were evidently its first architectural expression. A strange conglomeration of Christian symbols, often merging into the foreign characters of the Maya, gradually developed into a crude architecture. Life for a short period expressed an unusual nobleness; the civilization became dignified and beautiful. But the inspiration came to the poor people like a stimulant; passing, the reaction came at the hand of Nemesis. One-time prosperity was left a tradition.

Soon after the early Irish and Norman caught the sentiment and gave it expression in certain idiosyncracies which is the surprise of their work. Growing in compass, however, it expanded into a distinct system of building.

The people of Europe were at this time undergoing a healthy change. It was the awakening period which led to modern times. Most of all, the fraternal monk was hard at work. Fields were brought under cultivation, houses of shelter were erected, sick cared for and a little learning disseminated. Wherever they went they were a good example among the indifferently civilized. The old Celtic monks were interesting characters. Strong, red-headed and clean shaven, with tunic, cowl and girdle, they pursued their journeys from place to place, ringing a little bell they carried to announce their coming. A stout staff, a satchel of books and a small case were their traveling companions. The guest houses these people maintained extended their hospitality to all wayfarers. These useful occupations of the priesthood, however, gave way before the influences that combined in producing later conditions. The clergy developed an exaggeration of the first practical offices. The dogmas and liturgy of Popery expanded. The actual sacrifices of the aborigines became moral sacrifices. Spiritual arrogance was reflected truthfully as temporal pride and ambition. In company with this feeling the Gothic cathedral quickly developed until its culmination during the twelfth century. At this time construction was strong and ornamentation rational. The imaginative element, like the labors of the early priesthood, was properly qualified by association with practical conditions. The details of the architecture, however, lacked final refinement. Contrary to natural expectations, they did not approach the better state of perfection that seemed promised, but here, in the most sturdy condition, the art waned. The carvings deteriorated into imitations of nature. The construction itself degenerated into a masonic exhibition of skill. Finally, attenuated and elongated, the pure Gothic expired altogether.

The cause of this interruption was in the art itself. The star-like windows that perforated the solid walls of the early churches offered a more facile means in which to express this pictorial art. Solid masonry was an indifferent medium, painting on glass was in direct line of succession from the original pliable substance of the Central American isthmus. Naturally the windows, having attracted the refining influence, began a course of expansion. The window artist taxed the skill of the mason, and the size increased until they became a usurpation of the building. Walls were converted into exaggerated buttresses. Painted visions spread from glass to whatever wall surfaces remained. Color was an additional glorification. Architecture became an accessory, while the ruling passion was expressed in the immortal frescoes. The condemnation of Tertullian had become a recognized institution of the Roman Catholic Church. The Scriptures were illustrated to such an extent that the entire Bible was comprehended. The churches

and abbeys decorated in this beautiful art extended into many thousands. Based upon Bible texts the imagination developed the details of elaboration. No recourse was had to nature in the modern sense. It is not surprising that the painters finally exceeded their self-importance. It indicates the height of the career, and they little knew that the means of downfall was already in preparation by their patrons. In the fourteenth century the Church executed this branch of its own art and the painter began to study nature more and his confessor's imagination less.

With the increase of proselytism the ministry continually taxed their ingenuity for means of impressing the illiterate. Beneath the church windows they often held short acts of Bible scenes. Horrors and sacrifices, temptations and the whole category were represented with a greater reality than the painter could accomplish. As architecture collapsed into painting, so painting collapsed into the arms of the early ecclesiastical drama.

Spain and England alone, of modern countries, possess an independent theatrical literature. These were the "Mysteries," or "Miracle-plays," of the early monks. They adapted passages from the Bible, and represented them in dramatic form. They were a means of literary exercise, as well as instruction. About the oldest manuscript of these plays that remains today, is entitled "The Harrowing of Hell," and written about the middle of the fourteenth century. It was at that period the plays began to show some element of feeling. The presence of art was becoming manifest, the emotional character was effected in a new field of exercise. The subjects of these plays ranged from the "Sacrifice of Isaac" to the "Crucifixion." The dialogues were written in a mixture of prose and verse. While abounding with many absurdities, there were often passages of simple pathos. A subtle humor was also occasionally apparent. The usual character, however, was similar to a scene in which Noah administers a beating to his wife at her refusal to enter the ark. With the refinement of individual emotions, the author gradually elevated the drama, as his predecessors had painting and architecture. This phase of dramatic art was last seen in the secluded districts of Germany, notably at Ober-Ammergau. The modern "Punch and Judy" and the "Black Crook," are their corruptions. Beyond the precincts of the Church it appears in the company of music: the Lohengrin opera of Wagner. In passing, it may be remarked that music itself reaches a culmination by practical as well as poetical expression. The use of the "leitmotif" is significantly unprecedented.

By the avoidance of unnecessary digressions three well-defined waves of progress are indicated. Three recoveries of more and more life-like expression arose, one after the other. Was, or is, music a fourth wave of this expression? No. The Benedictines, Guido and Sylvester, invented the scale and organ, respectively. Strains of music sustained the Latin chant. The "Dies Iræ" arose upon the deep-toned voices of monastic life, but the hymn was the end. As an art, music is independent. Neither is its history associated with the furtherance of individual or organized selfishness. It cannot be used for intimidating the weaker minded. The other arts were available as tools of specific mental persuasion. It is to their credit that it is a condition above which they were continually rising. While in the hands of the Church they invariably received the denominational brand, an essential thing for "spiritual" kingdoms. Music impressed the listener without suggesting any external jurisdiction over his mind. The Roman organization did attempt to harness it to their chariot, but signally failed. The "Miserere" was declared special property, and its performance confined to the Church. The manuscript was guarded, and its copying forbidden under pain of excommunication. Feeble effort. On its performance of a Passion Wednesday, a young man made a few notes in his hat, and then went home and wrote it all out. That was Mozart. The Church contented itself with an appearance of corraling the young concert player's genius, a pretentious proprietorship.

The character of a people is the quality of their art. Nature holds up prominent examples for every condition and circumstance of life. They are guides and object lessons. The cathedral also had its particular associates, and one such at least may be viewed with advantage. Like the Church, probably no person in history so well expresses the imaginative character in its tendency for exercise regardless of natural circumstances as Peter, the Hermit, the enthusiast who led multitudes across Europe in pursuit of an idea. Monarch and beggar swarmed with him to the East. They left countries and homes to meet unknown

obstacles only to finally straggle back like bedraggled water returning to the basin from which a gust of wind has swept it. Such were the crusades. They represent faith erected upon faith, love upon love, ambition upon ambition. The height of the wave was measured by the depth of the trough. Five centuries later Descartes sat in his laboratory mathematically analyzing his fears and inoculating others with his doubts. Philosophy fell to dissecting imaginary objects. The later day clergy were asking one another: "How many angels can stand upon the Point of a Needle?" The beliefs of the seventeenth century checked off the beliefs of the twelfth century. Imaginative faith became imaginative doubt. This was also the succeeding characteristic of architecture and the kindred arts.

The poetical culmination of Greek art and the dual process by which it was arrived at was similarly repeated in the passage of the Gothic. The literal course was a continual development of those formulas which characterize the Popish liturgy. Symbolical characters and scenes from Bible history became an intricate language indicating formal emotions. The illiteral side of the arc, the use of the same features in an indiscriminate manner, developed through harmonious arrangement into the rational arts of architecture, painting and the drama. The three arts combined and the two processes were voluntarily united in the emblematic language of heraldry with its chivalric life. The picturesque became a poetical enactment.

Gothic art, like all art, was developed by the individual. In sculpture, carving, embroidered vestments, in the adornment of manuscripts, the handling of the brush or the detail of the actor, there was always an expression of personal conception. The artistic progress advanced with uniformity notwithstanding the absence of external bounds and premeditated purpose. Romanism, the organization, harvested the results within reach. While associated with the ecclesiastical establishment the Gothic was a Temple Art. From this point it was taken up by the workaday world. Municipal and domestic life absorbed the vestiges. The pointed arch and its accompaniments were devoted to the adornment of such conditions as offered in common life. The artist attached himself more closely to his home. In doing so, he had to surmount obstacles. As the monk devoted his life to his principles, so, during the Middle Ages, these were another class of people devoted to their principles. Examples of self-denial on the one side were fully equaled on the other. The former insisted upon their dogmas with inducements or threats. The latter were silent when oppressed, submissive to a degree. The former, priest or philosopher, was an enthusiast of the imagination, with an imaginary foundation. The latter fastened their imagination to facts. Rising above surrounding influences, they immortalized their lives and their labors, whatever they touched with their affections. In this way a natural art came about. While others were carried this way and that and back again, these stood their own ground. They bowed, indeed, before the circumstances of the period, but each was like a windmill upon a rock, turning, yet immovable. Silently they ground grist with the chaff that blew by.

When the monks, like Fra Lippo Lippi, turned to model painting, even though in small degree, it was in obedience to their own inspiration. Petrarch immortalized an ideal above his religion. The Adrian Colonas, few as they may have been, colored the history of knighthood as posterity loves to see it. While some put their character into their work others lived theirs. They adorned where expurgation was often endeavored. Such men and their sentiments made Venice, the diadem of the Adriatic. They made the entire circlet of jewels that extends from the south around to the northern boundaries of Europe. Florence, Heidelberg, Nuremberg: all shone with a different luster. Social and political centralization allowed the expression of natural characteristics while favoring the artist in the expression of his inclinations.

At first glance this municipal art would seem to be a corruption of the original Gothic. According to the standards of Gothic art that may be; but, considered separately, however, it will be seen that the Gothic was simply lost in a more stable system of architectural development, a permanent system devoted to the idealization of facts and substances for their own sake with an imaginative exaltation inferior to none. In architecture, *service* developed construction; *construction* developed ornamentation, and *that* ornamentation suggested its own extension. After that, elaboration was consistent, necessarily so. Upon this principle the artist

played with Gothic art, classic art, or whatever he touched. The results were harmonious, beautiful and above criticism. Natural art engulfed the Gothic, the artist swallowed the priest.

Inerrancy is the extreme pretension of moral authority. Therein the assumption of divine right reaches the limit. With the declaration of infallibility by the Roman Catholic Church it may be truly said the last spark of Gothic art went out. The temple became an imitation of precedents, the church that was modeled after the synagogue ceased to be inspired. Unfortunately for substantial comparison, nomadic people leave few traces of their existence to posterity, but by viewing the character of Gothic art and the manner of its development it may be declared the unmistakable monument of the Hebrew race. The cathedral is the tabernacle of the Semitic branch of the Caucasian family and one worthy their position in the annals of man.

The tents of the Semite developed into the cathedral, the strength of the Egyptian raised the lintel of the Parthenon from the desert, the theories of the Hindoo expressed their circumlocutions in the Alhambra. They are monuments to races that followed three distinct courses of development or government. One was guided visionarily, the other despotically, and the third by the esoteric savant. Temples are monuments to past races, and in the history of art characterize those whom they commemorate.

It is the object of the writer to place Gothic art as representative of the Hebrew race. The subject is treated as a proposition, and open to correction; the reader's fairness is trusted. In associating an art with so transcendental a race as gave the world the Scriptures, an exalted point of view seems essential. Their difference is between the enactment of faith and the mere intellectual standard of the Greek. The latter discloses a different aspect by comparison. Incidentally, it has been the aim to show where Christian principles might be found at work, quietly influencing the artist, poet, artisan and laborer, although externally at variance with surroundings, and gradually drawing them together in the development of a continually living art that may be a symphonic arrangement of all the styles, a befitting monument to commemorate and accompany the development of continual life and Faith.

The division of the world and its history into periods and epochs is, of course, a matter of agreeable convenience, a necessity in the development of ideas and their expression. Neither Faith nor concrete fact are affected. In order to dress a wall with ornament the designer must keep to a system, must naturally group and arrange in support of a main point until that particular work is finished. The wall itself, the strength and body, as Faith, remains unimpaired; both are constant, like opportunities.

The nature of Central American architecture indicates its character and purpose. Remembering the prophecy of the Nazarene teacher, the promised signs, the enigmatical writing in the sand, the clay, elsewhere unnecessary, removing blindness, some of the hieroglyphics may be interpreted as follows: "The father and mother are united through space by their wills. Failure is single. Confusion and doubt precede injury and offense in the conscientious dependence of two."

ENVOI (Illustrated).

Circumstance, theory and emotion, the three characteristics of mental comprehension, have successively predominated these papers. They are properties of the mind represented by the three mosaic faces in the wall of Uxmal, shown by the diagram (plate 1). The lower face represents circumstantial evidence; the middle one, reason, and the upper one, emotional suggestion. All of these characteristics, harmoniously combined, constitute the perfect instinct or intuition of common sense.

Four conditions are imposed in the architectural consideration of the subject at issue; a knowledge of ornamental grammar, actual experience in the development of ornament, a worthy attitude toward all ornamental causes, and an absence of ulterior motives. Modern experience has taught the architect that a well-grounded knowledge of some ornamental system in particular is necessary in order to secure consistency of design, and that the recognition of contemporary demands insures progress, a natural evolution from the precedents adopted. The country is filled with examples of what incongruity obtains, and the shamefulness of inconsistencies, when standards are wholly ignored; how they fail to harmonize or associate, either inspirationally or mechanically.

A careful study of Central American architecture discloses a charm of consistency that conclusively indicates the development of the designs from a common origin; not a gathering together

of motives from various sources, emphatically not, but a dependence upon some original precedent. This "Vignola" of the Central American designer is not only the key to their art, but also the key to their language writing. From that point both art and language entered upon diverging growths, the art element appearing by the introduction of variations into the language element that are meaningless from a literal point of view. An escape from this confusion depends upon finding the standard that inspired their work at first.

There are two ways of searching for the architectural precedent. One is by tracing to the least display of constructional skill to its source. If the construction seems purposely neglected, so much the better. The other is a reduction of the ornamentation to primal motives, and a search for their location in that condition. This, of course, is arriving at arbitrary display in contradistinction to those natural groupings which every artist recognizes. Primeval construction and primeval ornamentation are naturally found in company, also a display of mosaic work instead of carvings. It would certainly be as painful to try to learn from the ornate stone cuttings that represent a later period, as to begin the study of Greek at the back end of the grammar.

Next in order is the manner of interpreting the hieroglyphics. The connection of the art of these people with Hebrew ideals determines its visional or pictorial character. The key to the interpretation consists in finding the centers about which the signs rotate. That was the first thing the builder himself had to determine in order to avoid falling into confusion while constructing.

The conclusion of the translation indicates an ideal class of people, whose existence is necessary in order to prove its veracity of statement. It was the endeavor to associate that class in the preceding essay. They are those who have involuntarily acknowledged a marital bond superior to apparent conditions. Some have appeared inconsiderate in recognizing this higher marriage, some have seemed dissolute in the eyes of the historian, some have played the parts of fools, some have sacrificed their lives, some have been the eccentricities about which romance clings, others have silently walked with the shadow of death by their sides, and in the music of art praised that undefinable connection that cannot be sundered. It is a principle against which marshal ambition, appearances, wealth, vile mysticism and idle gossip, inflated nothings all. Preference for such things as these has ever preceded a fall as sure and swift as that of Napoleon and Cæsar.

The quotations from the Gospels (see plate 1) do not in themselves carry much weight, but in connection with other matters they may, especially when the antagonism the Nazarene encountered is considered with modern sense. The most evident fact is that the power which crucified Him had, not race or matters of Faith in view, but personal objects to gain. "I give unto you a new commandment," were His words; "And in secret spake I nothing"; and yet again: "But my words shall not pass away"; and "I tell you that, if these [disciples and followers] shall hold their peace, the stones will cry out."

Exact interpretation of these sign writings has much to contend with. Their fragmentary condition is inimical to a complete and practical comprehension of details, and, of course, all conversions of literal expression are liable to vary. The design taken from over a doorway (plate 2) is a portion of another wall, and is shown to substantiate the system of reading. The drawings may be readily studied without further comment. To make a practical conclusion, however, this much may be said: The transition indifferently interpreted at the end of the translation on plate 1 refers to one of the four critical periods of life (see the four risers with stepped fret design), of which the modern world seems to acknowledge but two, birth and adolescence. The successive surmountal of the succeeding periods should make marriage and its habit only agreeable for parentage, and, finally, death a process of renewal. Not one of these lost stages can be recovered by civilization while a single restraint remains to reproach the soundness of its moral tone—and its Creator.

Believing to have properly opened this subject, and indicated its true character, the writer turns to more profitable fields of quest.

THE Supreme Court of Colorado decides that a contractor's promise to pay for extra materials ordered by the architect, made before the work is completed, is founded on a sufficient consideration as to materials already used, as well as the rest.—*Irwin vs. Locke*, Supreme Court of Colorado, 36 Pac. Rep., 898.

ASSOCIATION NOTES.

ANNUAL MEETING C. A. S. C.

The annual meeting and election of officers of the Chicago Architectural Sketch Club was held on Monday evening, November 26, at the clubhouse. The meeting was large and enthusiastic, the "old boys" were out in force, and, as of old, "Heppy" assumed his "unanimous" rôle.

The following officers were elected for the ensuing year: George R. Dean, president; Elmer C. Jensen, first vice-president; Frank M. Garden, second vice-president; John Robert Dillon, secretary; Edgar S. Belden, treasurer.

The above named, with Arthur Woltersdorf and John Johnson, comprise the executive committee.

The past year has been an eventful one, one which has seen the club's most striking and brilliant success in the shape of the Seventh Annual Exhibition, held at the Art Institute last May.

For the first time in its history the C. A. S. C. occupies its own home, at 274 Michigan avenue, whose latch-string always hangs outside for its friends. Another feature was the organizing of the C. A. S. C. classes in water-color, under W. B. Mundie and Hugh M. G. Garden; pen-and-ink under Elmer C. Jensen, and clay modeling under Mr. Annibal Guerini.

These classes have been organized for this year's work, George R. Dean and Hugh M. G. Garden having charge of the water-color classes, Elmer C. Jensen and Arthur Henn the pen-and-ink classes, and Mr. Richard Bock having charge of the class in clay modeling.

These classes are of a character which are a benefit to draftsmen in their everyday work, and are progressive and for every man according to his needs. These classes are free to members of the C. A. S. C.

The following announcement has been received from the secretary of the awards in the Clark medal competition:

CHICAGO ARCHITECTURAL SKETCH CLUB.

274 MICHIGAN AVENUE,
CHICAGO, ILL., November 30, 1894.

DEAR SIR,—I submit herewith the report of the Adjudicating Committee for the Robert Clark Testimonial, which I trust you will give prominence in your publication.

The jury appointed to award the medals for the Robert Clark Competition submit the following:

"The competition as a whole was a decided success. The draftsmanship excellent, with but few exceptions. Considering the age limit of thirty years the same cannot be said of the main feature in a competition, that is, that a building should look like, and suggest what it is intended for. The great majority of contestants submitted designs too suggestive of art galleries, institutes, etc., too monumental in their arrangement of parts, and the disposition of detail too lavish.

"The selections were finally narrowed down to four designs and the awards were made by a written vote of each judge.

"For Gold Medal, Willard Hirsh, Cleveland, Ohio.

"For Silver Medal, Edwin R. Clark, Lowell, Massachusetts.

"For Bronze Medal, Ernest F. Guilbert, Chicago, Illinois.

"Mention, Albert Kahn, Detroit, Michigan.

"W. B. MUNDIE, Chairman.

"FRANK L. WRIGHT.

"IRVING K. POND."

Sixty-five designs were submitted, aggregating one hundred and thirty drawings of an unusually high order of merit.

The drawings will be exhibited next month at the Art Institute, and immediately thereafter be returned to their owners.

Please accept the thanks of the Chicago Architectural Sketch Club for your interest in the competition. I am, very truly yours,

JOHN ROBERT DILLON, Secretary.

CLEVELAND ARCHITECTURAL CLUB.

The Cleveland Architectural Club was organized November 22, 1894, and the following are the officers: President, Benjamin S. Hubbell; vice-president, Harry S. Nelson; secretary, Herbert B. Briggs; librarian, Perley H. Griffin; treasurer, E. E. Noble; members of executive board, W. D. Benes and Wilbur M. Hall.

The object of the club will be the study of architecture and the allied arts. Competitions will be held monthly. The subjects for the December and January competitions are designs for a "Doorway to a Residence in Masonry," and a "Transfer Station on the Public Square."

The officers, with Robert Allen, Frederick Baird, J. W. Russell, G. B. Bohm, Albert E. Skeel, Willard Hirsh, Ray Rice and C. S. Schneider, constitute the charter membership.

ARCHITECTURAL LEAGUE COMPETITION.

The eighth annual competition for the gold and silver medals of the Architectural League, in connection with the tenth annual exhibition of the Architectural League of New York, is as follows:

CONDITIONS.

First.—The competitors must be residents of the United States, and under the age of twenty-five.

Second.—The drawings shall be made in conformity with the following programme, and entirely by the hands of the competitor.

The awards will be made under the direction of the Committee on Competitions and Awards.

All the drawings complying with the conditions will be hung at the exhibition, the first and second prize drawings being so indicated, and these latter shall become the property of the league.

PROGRAMME.

The main stairway of a national library. The stairway, which is to start with a single flight on the axis, should be entered on the ground floor through a spacious vestibule or entrance hall, and should lead to the main story where the large public reading rooms are placed.

The ground story is to be twenty feet high, from floor to floor. The total width between the side walls of stairway is forty-five feet. The length is not given.

In an edifice devoted to learning, the first impression should be that of seriousness, and such as will prepare the mind for tranquility and reflection. Literature, science and the fine arts are suggested as the subjects of the decoration, which should be employed with moderation, and be impressive rather

by its character than by its elaboration. It should be kept in mind that this is a problem of a monumental stairway, and not of entrance halls or reading rooms.

The drawings are: Plan of the first story; plan of the second story; to a scale of 3/16 inch to the foot. Longitudinal section; transverse section; to a scale of 3/8 inch to the foot.

The rendering: Wash drawings, either in monotone or color. No perspective.

Each sheet must be distinguished by a motto or cipher. A sealed envelope bearing the same motto or cipher must contain the name, full address, place and date of birth of the author, and must be mailed to the Committee on Competitions and Awards of the Architectural League, No. 215 West Fifty-seventh street, New York.

Drawings are to be delivered flat, carriage paid, at the same place, on or before February 5, 1895. They will be returned at the close of the exhibition at the expense of the contributor.

GEORGE L. HEINS, Chairman.

215 West Fifty-seventh street.

THOMAS HASTINGS.

WILL H. LOW.

Committee on Competitions and Awards.

CORRESPONDENCE.

UNIVERSITY OF PENNSYLVANIA ARCHITECTURAL SCHOOL.

[The following letter was forwarded to Mr. Warren P. Laird, Professor of Architecture in the University of Pennsylvania, and his reply will answer many questions asked by correspondents regarding this school.—EDITOR.]

Editors Inland Architect: MILWAUKEE, August 8, 1894.

DEAR SIRS,—I received a catalogue of the Architectural Department of the University of Pennsylvania the other day, and was very much impressed with the two years' course. Now, I would be very much obliged to you if a few "pointers" in regard to the school could be given to me through the columns of your paper.

I have not heard much of the architectural department of that school and what I would like to know is, "Is that school as good as those universities which make the course in architecture one of the main features, as, for instance, Cornell or the Boston Tech."

Hoping that I am not asking too much of you, I remain,

Yours truly,

A READER OF THE INLAND.

PHILADELPHIA, Pa., September 19, 1894.

Editors Inland Architect:

DEAR SIRS,—I take pleasure in replying to the subjoined request for information.

The School of Architecture of the University of Pennsylvania is, to answer your correspondent's leading question, a "main feature" in that institution, which, I need not tell you, is one of the four largest universities in this country. Although the school has been in existence but a few years, it has had a very remarkable growth owing to the fortunate circumstance of having been established in one of the largest cities and one of the principal universities, and no less to the broad-minded and liberal policy under which it has been improved by the university trustees. It is well equipped in every way for the prosecution of its work, which is planned upon the broadest and most generous lines, every effort being made to keep the school abreast of the foremost institutions of its kind.

It offers a full four-year course of architecture, comprising not only a complete line of professional studies, but a full complement of liberal studies in the sciences, mathematics, modern languages, etc., the entire course being formed with reference to broadly educating the architect and making of him more than a draftsman.

A two-year special course has been arranged for the needs of draftsmen unable to give four years to their technical education; this course comprising the cream of the professional work of the four-year course.

An auxiliary course in interior decoration, or interior architecture, is also provided, and is open to women.

The department occupies a large suite of rooms and engages the services of ten officers in its architectural studies alone. These comprise, beside the professor of architecture, an assistant professor of design, from the Ecole des Beaux Arts, Paris; an assistant professor of interior architecture, who also directs the upper classes in drawing from the antique, etc.; an instructor in architecture; a professor of art, who directs the classes in water color, himself being among the most distinguished water colorists of this country; an instructor in drawing, another in pen and ink rendering, another in modeling, a lecturer on building construction, and a librarian.

The students further receive lectures from the architects of Philadelphia, and in their general culture studies are directed by some twenty-three of the university professors and instructors.

The material equipment of the department is especially to be noticed, consisting of several large drafting rooms lighted with individual electric lights, a library of valuable architectural works, plates, photographs, drawings, etc.; a drawing-room for the use of the classes in freeland, water color, and pen and ink; a modeling-room, a lecture-room, etc. All these rooms are especially fitted up for their respective classes.

The growth of the school, from its founding in 1890, has been little less than extraordinary, and the attendance for the coming year promises to be upward of one hundred.

It is impossible, of course, to demonstrate the merits of any educational institution in a descriptive article; this must be determined by observation of the work actually done. In regard to

this point, it has been the constant and untiring purpose of those in charge of the school to secure for its Corps of Instruction the very best available men, and it is believed that in this they have met with a considerable degree of success.

Thanking you for the opportunity of presenting the school to your readers, I am,

Yours very truly,

WARREN P. LAIRD,
Professor of Architecture.

OUR ILLUSTRATIONS.

House, Denver, Colorado. Sketched by William Cowe.

House, Denver, Colorado. Sketched by William Cowe.

Abbey of Marmontier, XIII Century. John A. Rogers, del., Chicago.

Old Houses at Laval. Rendering from photo, by Edw. T. Wilder, Chicago.

Hall for House, at Lakewood, New Jersey. E. G. W. Dietrich, architect, New York.

House for Paul Fuller, Wyckoff, New Jersey. E. G. W. Dietrich, architect, New York.

Public School for Marine City, Michigan. Edw. C. Van Leyen, architect, Detroit, Michigan.

Chicago Architectural Sketch Club Competition, City Park Bridge. First place, John Johnson.

A Village Hospital for Geneva, New York. Addison Hutton, Charles L. Hillman, architects, Philadelphia.

Language Expression of Ornamental Motives. Illustrating article, "The Passing of Gothic Art," by Conrad Bryant Schaefer.

Chicago Architectural Sketch Club Competition, Picturesque Chicago. First place, E. C. Jensen; second place, John Johnson.

House, for himself, by C. Ferris White, architect, Everett, Washington. First story built of peeled cedar logs finished in oil; second story frame and shingled.

Corrections: Architect C. F. Schweinfurth writes that the following two illustrations published in November number were erroneously credited to him: "Armory Building, Cleveland"; "Store Building, Cleveland." Both buildings were designed and executed by Coburn & Baruum, architects. The photogravure plate in November number entitled, "Residence of Professor McLaughlin, Chicago; H. Langford Warren, architect, Boston," should have read: "Residence of Prof. J. Laurence Laughlin, Chicago; Walker & Kimball, architects, Boston."

Photogravure Plate: Residence of Mrs. A. D. Wheeler, Edgewater, Illinois. George W. Maher, architect, Chicago.

PHOTOGRAVURE PLATES.

Issued only with the Photogravure edition.

Trinity Church, Detroit, Michigan. Mason & Rice, architects. Residence of Allen Bourue, Detroit, Michigan. M. L. Smith, architect.

First Unitarian Church, Detroit, Michigan. Donaldson & Meier, architects.

House for D. R. Wolff, St. Louis, Missouri. Peabody, Stearns & Furber, architects.

Residence of J. W. Sullivan, Edgewater, Illinois. George W. Maher, architect, Chicago.

View in Dining Room, Residence of F. F. Palms, Detroit, Michigan. Mason & Rice, architects.

View in Hall, Residence of Mrs. A. D. Wheeler, Edgewater, Illinois. George W. Maher, architect, Chicago.

MOSAICS.

A UNION of forces which to the large circle of acquaintances enjoyed by the gentlemen concerned will seem a most happy one is that recently entered into by architects T. C. Link, A. F. Rosenheim and W. B. Ittner, of St. Louis, under the firm name of Link, Rosenheim & Ittner, with offices in the Union Trust Building. This joining of artistic constructive and business capacity cannot but be successful.

ARCHITECTS in Chicago looking for large and finely arranged offices especially fitted up for architectural practice will find a suite in the Hartford building which in arrangement, lighting and location cannot well be excelled. Mr. E. F. Goebel, who has charge of the building and is known to architects generally, will be glad to show this suite at any time. It is noted that the office suites in this building in general are exceedingly well arranged and in every way desirable.

The following notice to women architects is sent by the Board of Women Managers of the Cotton States and International Exposition of 1895:

ATLANTA, Ga., October, 1894.

Designs will be received until November 25, 1894, from women architects anywhere for the Woman's Building, to be erected in connection with the Cotton States and International Exposition, to be held at Atlanta, Georgia, September to December, 1895. A first and second premium will be awarded for plans. For particulars, diagrams and data apply by letter to

MRS. E. C. PETERS,

Chairman Building Committee, Cotton States and International Exposition Company, Atlanta, Georgia.

THE efficiency of the health department of the District of Columbia has been augmented by the fortunate acquisition of Mr. H. C. McLean as deputy health officer and chief clerk of the department, assistant to the new health officer, Dr. William C. Woodward. As Mr. McLean's record in not only his twenty-six

years of services in departmental work in Washington, but particularly that as chief clerk of the Supervising Architect's office has made him known to the profession his new work in the health and sanitary department will certainly be conscientiously and thoroughly executed. In this the city of Washington is to be congratulated, as under the care of Doctor Woodward and his able assistant this important department will develop all that experience as well as administrative and executive ability can make it. The loss of Mr. McLean's services to the architectural department has been such that it is hoped that in the reorganization of that office his services will again be sought in the field in which for a quarter of a century he served with such marked ability.

OBITUARY.

DEATH OF JAMES KEYS WILSON.

James Keys Wilson died in Denver, Colorado, October 13, after a very short illness. Mr. Wilson was born in Cincinnati, April 11, 1828, and was therefore in his sixty-seventh year when he died. His widow is a sister of Samuel B. Keys and of Mrs. Samuel J. Thompson. He also leaves two sons and a daughter. His two sons and Mrs. Wilson, who are in Cincinnati at this time—and his family, as well as that of his wife, were pioneers of Cincinnati, and the names of Wilson, Keys, Baker and Barr (who were all related to each other) will always be associated with Cincinnati history. Mr. Wilson was by instinct, education and practice an architect, and he was thoroughly educated and equipped for his profession, and a friend speaking of his works said, "Cincinnati owes more to Mr. Wilson than she will ever pay, for he gave her the best architecture she ever had or ever will have. His buildings stand as monuments of a great mind." From 1855 to 1875 Mr. Wilson was a busy man in his chosen field. He built during this period the buildings: southeast corner Third and Vine streets, northeast corner of Third and Vine streets, and the adjoining buildings on the north and on the east. Also the southwest corner Third and Vine streets, southwest corner Third and Race streets, the Robert Mitchell furniture store, the Sinton building, Fifth and Vine streets; the Jewish synagogue, corner Eighth and Plum streets; the entrance to Spring Grove, the Dexter monument, the Shoenberger mansion, the Gothic store, 25 W. Fourth street, lately changed, and many other buildings, every one showing the hand of a master. He was the first president of the Cincinnati Chapter, American Institute of Architects, and always stood high among his fellows. He will always be spoken of as one of the master minds of the century.

BUILDING OUTLOOK.

OFFICE OF THE INLAND ARCHITECT,
CHICAGO, Ill., December, 1894.

Conditions in commercial manufacturing and financial circles have been slowly improving for several weeks. The approach of cold weather checks outward preparations for activity, but beneath the surface, the organization of capital and enterprise is in progress for the early spring. Without entering into prophesy it can be said that there is much of encouragement in the outlook for 1895. The long curtailment and restriction in every branch of trade and manufacturing, the locking up of capital, the repression of enterprise, have all prepared the way for better things. Meantime mechanical efficiency has been expanded, capacity is greater than ever, cost of production has been reduced, credit has been strengthened, weak traders have been weeded out by the thousands, combinations have been either crushed or driven aside; in short the whole business community has learned and grown. As a people we are stronger than twelve months ago. One more troublesome factor in legislation remains and that is the creation of a suitable and permanent financial system. The railroads are suffering from want of traffic. Rolling stock and equipments are worse run down on most lines than for years, but within a month or two several trunk lines have taken steps to restore normal conditions. Manufacturers big and little, east, west and south, are feeling healthful influences, but it will be probably some time, perhaps in the early spring, before real vigor will animate the body politic. People are distrustful. Manufacturers wait for orders, fill them when received, then stop. In building trade circles there is quite a hopeful feeling in all the larger cities from Boston to the remote northwest. Builders believe they will compensate next year for what they lost this year. The statistics of building, when compiled in January, will show a better year than we have supposed. In Boston, New York, Philadelphia and Chicago, the deficit below 1893 will be trifling aggregated. In several western cities the decline will not exceed ten per cent. In a few towns of 50,000 to 100,000 inhabitants the statistics will show an increase. Prices for iron, steel, lumber, lath, cement, paper and interior finishing material show a decline below last year's averages of from ten to fifteen per cent when aggregated. Just now prices are exceptionally low and weak in spite of the prospective improvement in trade and building circles in the spring of 1895. Iron and steel products are lower than ever recorded. Lumber reached rock bottom a few months since and will hardly decline further. Fuel has touched its lowest and an advance is probable. General merchandise has found a level below which production involves loss. Hence the country is on a solid footing. To all appearances there is an abundance of money in banks. One evidence of this is, that to check the flow to New York from interior cities of idle banking capital, the rate of interest was reduced to nominal or in some cases to zero. Thousands of business men recognize that we are entering on new conditions and into new possibilities. Cost of production has been greatly and permanently reduced; productive capacity has been greatly increased. Motive power as to cost is declining. Machinery is cheaper. Simpler and more economic devices and methods are coming into use. Broader fields for human activities are being opened up. Travel is cheap

and land is cheap. Congestion of population is being reduced in our own cities and towns. Trolley lines are rendering residence at more remote points possible and comfortable. This fact cannot be overestimated. It means much to builders. People will not break old habits at once, but there will be a steady melting away of densely populated localities, and there will be a steady expansion in the percentage of brick and lumber necessary per head of population. More house room is wanted, and the increased earnings of the masses in the next few years will be expended in this direction. The depression of the past twenty months or more is virtually over. No early recurrence of like conditions is probable. All the diversified activities of the producing interests are preparing for greater exertion and there is nothing in the horizon to warn us of more than the usual dangers. Wages disputes will no doubt tax the sapience of employers when prosperous conditions return. The workers who have suffered reductions will naturally seek the first opportunity to restore wages even though cost of living has proportionately declined. But it is probable these efforts will be confined to trades and localities and that the demands will not be unreasonable. We enter upon the new year under decidedly more favorable conditions than existed twelve months ago.

SYNOPSIS OF BUILDING NEWS.

Architects are invited to furnish for publication in this department monthly or occasional reports of their new work before the letting of contracts. Reports of buildings costing less than \$5,000 are not published.

Buffalo, N. Y.—Architects Green & Wicks: For the Parkside Clubhouse, a new brick and stone building; to cost \$40,000.

Architects M. A. Beebe & Son: Have plans for a new school building, to be built on Elmwood avenue and Ferry streets; to cost \$40,000.

Chicago, Ill.—Architect D. S. Pentecost: For J. A. Richards, at 1514 Monroe street, a three-story flat building, 62 by 51 feet in size, and a two-story flat building, 48 by 51 feet in size; to be of stone front for one and the other to have a front of pressed brick and stone; hardwood interior finish and mantels, gas fixtures, electric wiring, steam heating, etc.

Architects Ruehl & Gatterdau: For J. McCarthy, on Twelfth street, a three-story flat building, 50 by 67 feet in size; to have a stone front, sanitary improvements, mantels, gas fixtures, etc. For S. Franklin, on Morgan street near Twelfth street, a two-story addition to factory.

Architect Francis J. Morton: For A. Gray, a two-story, basement and attic residence, 32 by 64 feet in size; to be erected at Maywood; to be of frame construction with stone basement, have hardwood interior finish, mantels, electric light, heating, etc. For J. Meyer, a four-story store and flat building, 25 by 100 feet in size; to be erected at Avondale; to be of stone and pressed brick front, have the modern improvements, steam heating, etc.

Architects J. K. & A. B. Pond: For J. P. Gardner, at the corner of Wells and Illinois streets, a six-story and basement manufacturing building; to be of mill construction and have a front of pressed brick and terra cotta. For Messrs. Robert and Harvey Dean, at Hinsdale, a two-story frame house, 34 by 65 feet in size; to have a stone basement, hardwood interior finish, mantels, gas fixtures, heating, etc.

Architects Hessenmuller & Meldahl: For Mrs. Coe, a two-story flat building, 50 by 60 feet in size; to be of pressed brick and stone front, have all the modern plumbing, gas fixtures, etc. For H. Berg, a three-story flat building, 25 by 65 feet in size; to be of stone and pressed brick, have all the modern improvements. For J. J. Coburn, at the corner of Hamlin avenue and Twenty-seventh street, a three-story store and flat building, and a two-story flat building with stone front, the other to be pressed brick and stone; will put in all improvements.

Architect F. B. Townsend: For D. F. Flannery, a two-story basement and attic residence, 32 by 60 feet in size; to be erected at Kenmore avenue between Thorndale and Hardmore avenues, Edgewater; to have a cut stone basement, hardwood interior finish and mantels, gas and electric fixtures, electric light, etc.

Architects Dinwiddie & Newberry: For Roderich Stebbins, at Austin avenue and Oakley, a two-story flat building, 50 feet front; to have a pressed brick and stone front. Also made plans for the First Presbyterian church, to be erected at Battle Creek, Michigan.

Architect Niels Buck: For L. C. Geahart, at 3164 Dover street, Ravenswood, a two-story and basement residence, 24 by 45 feet in size; to have a pressed brick basement and frame above, hardwood finish, etc. Also made plans for two two-story double residences, 40 by 62 feet in size; to be erected at Montrose boulevard near Halsted street; they will have stone fronts, the best of sanitary plumbing, mantels, heating, etc. Also made plans for a two-story double flat building, to be erected on West Ravenswood Park near Leland avenue; to have stone and pressed brick fronts, the modern plumbing, mantels, gas fixtures, etc. Also, a two-story flat building, 22 by 50 feet in size; to be built at Woodside avenue west of Ashland avenue; to have a front of stone and pressed brick, the modern plumbing, gas fixtures, mantels, etc. For J. B. Durand, four two-story, seven-room frame houses, to be built at Woodside avenue; sanitary plumbing, gas fixtures, mantels, etc. For H. L. Wheatley, eight seven-room frame houses, at Paulina and Commercial streets; mantels, gas fixtures, etc.

Architects Murphy & Camp: For W. J. Gibbons, at 225 Osgood street, a three-story residence, 24 by 67 feet in size; to have a Bedford stone front, hardwood interior, mantels, gas fixtures, etc.

Architects J. F. & J. P. Doerr: For J. Mueller, at Thirty-ninth street and Veruon avenue, a four-story and basement store and flat building, 27 by 88 feet in size; to have a Roman pressed brick and stone front, hardwood interior finish, mantels, etc. Also a five-story store and flat building, at the corner of Thirty-first and State streets; to be of pressed brick and stone, and have all improvements.

Architect L. G. Hallberg: For W. A. Carlson, on Fletcher street, a three-story and basement flat building, 25 by 60 feet in size; to have a stone front, all the sanitary improvements, mantels, gas fixtures, etc.

Architect W. H. Lanson: For J. Becker, at Jackson boulevard and Kedzie avenue, a block of five three-story residences, 125 by 60 feet; to have stone fronts, hardwood interior finish, the best of plumbing, gas fixtures, steam heating, etc.

Architect Julius H. Huber: For J. L. Cochran, at Winthrop avenue, Edgewater, a two-story residence, 33 by 50 feet in size; to be of brick basement and frame, have hardwood finish, mantels, gas fixtures. For Charles Steinbrecher, at the corner of Milwaukee and Crawford avenues, a roadhouse, 130 feet long; of frame construction.

Architects Hallstrom & Strandel: For M. Hill, a two-story frame house; brick basement, plumbing, gas fixtures, etc. For O. Berg, at Richmond street near Chicago avenue, a three-story and basement flat building, 22 by 76 feet in size; to be of pressed brick and stone front, have all the sanitary improvements, mantels, etc.

Architect Victor Hellstrom: For P. M. Johnson, at 1225 Oak Grove ave, a three-story flat building, pressed brick and stone front, mantels, etc.

Architect I. C. Zarbell: For M. Sullivan, on Polk street near Vernon Park, a two-story flat, 22 by 65; of pressed brick and stone front, plumbing, gas fixtures, etc.

Architects Huehl & Schmid: For C. E. Sainclair, a three-story apartment house, 50 by 55 feet in size; to be erected at the corner of Commercial avenue and Montrose boulevard, Ravenswood; to be of stone and pressed brick front, have hardwood finish, mantels, gas fixtures, etc. For J. T. Horton, a three-story and basement apartment house, 125 by 58 feet in size; to be erected at Deering street; the first story will be of stone and the rest of pressed brick

and stone, will put in hardwood finish, mantels, the best of modern plumbing, etc. For C. M. Smith, on Desplaines street, a six-story factory, 50 by 106 feet in size; to have a pressed brick and stone front. Also prepared drawings for a four-story factory, 88 by 100 feet in size; to be erected on Desplaines street near Congress; to have a pressed brick and stone front, electric light, etc.

Architect E. R. Kransie: For Theo A. Kochis, a four-story apartment house, 50 feet front; to be erected at Locust street near La Salle avenue; the first story and basement to be of buff Bedford stone, and above of pressed brick, stone and terra cotta, have hardwood interior, mantels, gas and electric fixtures, etc. Also for Arnold Tripp, a three-story and basement residence and stable, at Arlington place near Clark street; to have a stone front, the best of modern improvements, steam heat, etc. For M. Fitzsimmons, a two-story and basement flat building, 70 by 70 feet in size; to have a pressed brick and stone front, hardwood finish, mantels, etc.

Architect George Grussing: For Thomas Henderson Company, three one-story manufactory buildings, 25 by 50 feet each; to be erected at West Forty-fourth street and Bloomingdale road; common brick, etc. For C. F. Weinmann, a three-story flat, 22 by 70 feet; to be erected at 1375 Harvard street; to be of stone and pressed brick, have plumbing, mantels, gas fixtures, etc. For S. D. Griffin, at the corner of Flournoy street and Western avenue, a three-story and basement flat building, 50 by 125 feet in size; stone front, the modern sanitary plumbing, gas fixtures, etc. For Emily U. Meiselbar, a three-story store and flat building; to be erected at Walnut street near Kedzie avenue; pressed brick and stone front, the sanitary improvements, mantels, steam heat, etc.

Architect H. C. Hoffman: For John C. McCarthy, a three-story flat building, 21 by 75 feet in size; to be erected at 186 Sheffield avenue; pressed brick and stone front, the modern plumbing, mantels, etc.

Architect W. H. Milner: For J. D. Vail, two two-story flats, 20 by 44 feet in size each; to be erected at Seventy-third and Sangamon streets.

Architect Theodore Lewandowski: For Peter Schuckwell, a three-story store and flat building, 23 by 92 feet in size; to be erected at North Ashland avenue; buff Bedford stone front, all the sanitary improvements, gas fixtures, mantels, electric bells, speaking tubes, laundries, heating.

Architects J. T. Nicholson & Son: Made plans for a three-story and basement apartment house, 50 feet front; to be erected at Boulevard place between Vincennes avenue and St. Lawrence avenue; it will have a handsome stone front, hardwood interior finish and mantels, the best of plumbing, electric light, steam heating, etc.

Architect Schlacks & Ottenheimer: For Max Wolff, a five-story apartment house, 65 feet front; to be erected at Lake avenue near Fortieth street; the front will be of buff Bedford stone, interior to be finished in hardwoods, have the best of sanitary improvements, electric light, elevators, steam heating, etc. Also got out drawings for three handsome three-story residences, to be erected at Boulevard place near Grand boulevard; they will have stone fronts, hardwood interior finish, mantels, the best of open nickel-plated plumbing, electric light, steam heating.

Architect W. T. Leshar: For W. R. Linn, a four-story store and flat building, 86 by 100 feet in size; to be erected at Twenty-third and State streets; the front will be of pressed brick with stone trimmings, the interior to be finished in hardwood, have the modern plumbing. For Joseph Willis, at Twelfth and West Fortieth streets, a three-story and basement store and flat building, 50 feet front; to be of stone, have all the sanitary and modern conveniences. For C. E. Follansbee, at Twenty-third and State streets, a four-story store and flat building, 100 by 86 feet in size; to be of pressed brick and stone front, have all the modern improvements.

Architect W. L. Newman: For W. R. Baker, at 1522 West Adams street, a two-story and cellar flat building, 25 by 70 feet in size; to have a pressed brick and stone front, the modern plumbing, gas fixtures, etc.

Architects Kleinpell & Borst: For Messrs. E. J. White and J. M. Bennett, two three-story and basement residences, 52 by 76 feet in size; to be erected at Woodlawn avenue between Forty-sixth and Forty-seventh streets; to have stone fronts, slate roof, the best of plumbing, gas fixtures, hot-water heating, etc. For W. C. Foley, at Vincennes avenue between Forty-first and Forty-second streets, four two-story residences, 70 feet front by 68 deep; to have handsome stone fronts, hardwood finish, the modern open plumbing, heating, etc.

Architects Huehl & Schmid: For C. J. Langen, a three-story apartment house, 50 by 57 feet in size; to be erected at Wellington avenue east of Lincoln; to be of stone basement and above of pressed brick with stone trimmings, have hardwood finish and mantels, gas fixtures. For Patrick Loftus, at Austin avenue and Paulina street, a three-story and basement flat building, 50 feet front; to be of pressed brick with stone trimmings.

Architects Beers, Clay & Dutton: For J. J. Dunn, a four-story and basement store and flat building, 50 by 118 feet in size; to be erected at 5052 and 5054 State street; it will have a stone front, all the modern sanitary improvements, gas fixtures, heating, etc.

Architect H. M. Hansen: For H. C. Vonte, a two-story residence, 30 by 50 feet in size; to be erected at Edgewater; it will be of frame with stone basement, the best of sanitary plumbing, heating, etc.

Architect J. L. Silsbee: For T. J. Hodgson, a three-story apartment house, 44 by 125 feet in size; to be erected at the corner of Herndon and Melrose streets; it will have a pressed brick and stone front and all improvements.

Architects Tnithill & Atchison: For T. C. H. Wegforth, four three-story houses, 75 feet front; to be erected at Monroe street near Central Park avenue; they will have stone fronts, the modern sanitary improvements, gas fixtures, etc.

Architect E. F. Pagels: For F. J. Classen, at Humboldt boulevard, a two-story frame residence, 22 by 60 feet in size; to have stone basement, hardwood finish, the best of plumbing, gas fixtures, heating, etc.

Architect W. J. Van Kenren: For A. Knapp, a two-story livery stable, 500 by 40 feet in size; to be erected at Oak Park; it will be of pressed brick with stone trimmings, have gas fixtures, plumbing, etc. For W. Ketcham, at Oak Park, a two-story residence, 35 by 50 feet in size; to be of frame with stone basement, have hardwood interior finish, mantels, the best of modern sanitary plumbing, electric light, etc.

Architect Joseph Bettinghofer: For Gerhardt Roth, a four-story and basement store and flat building, 47 by 62 feet in size; to be erected at Cleveland and Menominee streets, to have a pressed brick and stone front, the modern sanitary plumbing, gas fixtures, etc.

Architect A. G. Ferree: For G. J. Shannon, a three-story store and flat building, 25 by 90 feet in size; to be erected at 917 Sixty-third street; it will have a stone front, all the modern plumbing, mantels, gas fixtures, etc. For M. Beyers, at Seventy-sixth street and Emerald avenue, two two-story houses, to have stone fronts, hardwood interior finish and all improvements.

Architect O. L. McMurray: For Ira Eaton and W. S. Palm, four one-story cottages, to be built at Grand Haven, Michigan.

Architect E. C. S. Holmboe: For A. Murray, ten two-story flats, 22 by 40 feet each; to be erected at Hoffman avenue; to be of stone and pressed brick fronts; have the sanitary improvements, gas fixtures, etc.

Architect C. W. Nothnagel: For W. W. Wilcox, two three-story residences, 18 by 52 feet each; to be erected at Vernon avenue, near Thirtieth street; to have stone and pressed brick fronts, oak and Georgia pine finish; the sanitary and modern conveniences.

Architect D. E. Postle: For F. H. Gehrke, a two-story frame residence, 24 by 46 feet, to be erected at Austin; to have a stone basement, the sanitary plumbing, mantels, gas fixtures, etc.

Architect William Strippelman: For A. Cheney, at 359 West Madison street, a five-story furniture warehouse, 50 by 110 feet in size; to have a stone front, electric light, elevators, etc.

Architects Jones & Stoddard: Made plans for a two-story flat building, 25 by 70 feet in size; to be erected at Monroe street, west of Kedzie avenue. The front will be of stone; interior to be finished in hardwood; have the best of plumbing, mantels, gas fixtures, heating, etc.

Architect H. P. Beiler: For Robert Solms, a three-story flat building, 22 by 68 feet, to be erected at Burling street, corner of Wrightwood avenue; stone front, the modern sanitary improvements, mantels, gas fixtures, etc.

Architect Henry Ives Cobb: For Messrs. Osborne & Fenn, a six-story store and apartment house, 150 by 150 feet in size; to be erected at the corner of Twenty-second street and Indiana avenue; the fronts will be of pressed

brick with stone trimmings; have hardwood interior finish and mantels, electric light, steam heat, etc. Also for Dr. Crissman, a two-story flat building, 28 by 60 feet; to be erected at Elaine avenue; to be of pressed brick and stone front; have sanitary plumbing, mantels, etc.

Architect F. W. Kirkpatrick: For J. Frese, a four-story store and flat building, 25 by 65 feet; to be erected at Madison street, between Homan and Central Park avenues; it will be of pressed brick and stone front, have all modern improvements, heating, etc. For Mrs. Martha Griffiths, a two-story and basement flat building, 26 by 70 feet in size; to be erected at Fulton street, near Western avenue; pressed brick and stone front.

Architect Ira C. Saxe: For M. Beebe, a two-story store and flat building, 56 feet front, to be erected at the corner of Ashland and Graceland avenues; to be of stone and pressed brick front; have the modern sanitary improvements, gas fixtures, etc.

Architect George S. Kingsley: For W. A. Kreidle, a three-story and basement flat, to be erected at 209 Belden avenue; to be of stone front, have all the sanitary plumbing, mantels, gas fixtures, laundries, furnaces, etc.

Architects Ostling Brothers: For P. L. Mooney, a three-story flat building, 25 by 77 feet; to be erected at 446 Jackson boulevard. To have a stone front, the sanitary plumbing, mantels, gas fixtures, furnaces. For T. Hufmeyer, a two-story flat building, 23 by 80 feet; to be erected at Melrose near Halsted street, stone front, the modern plumbing, gas fixtures, etc.

Architects Shepley, Rutan & Coolidge: For A. A. Sprague, a three-story residence, 41 by 85 feet in size; to be erected at 2636 Prairie avenue. To be of pressed brick and stone front, have the best of plumbing, hardwood interior finish, heating, etc.

Architect E. M. Newman: For P. Grace, at 50 Oak street, a four-story store and flat building, 40 by 85 feet in size; to have a front of buff pressed brick with Bedford stone trimmings, pine finish, mantels, gas and electric fixtures, etc. For W. Walker, at 688 Fullerton avenue, a three-story and basement flat building, 25 by 90 feet in size; to have a front of brown stone, all the best of modern improvements; cost, \$15,000.

Architects Harston & Hotchkiss: For E. Meisel, at 111 Lincoln avenue, a three-story store and flat building, 25 by 70 feet in size; to be of pressed brick and stone front, have all the sanitary improvements, gas fixtures, etc.

Architects Stiles & Stone: For A. Butts, at the corner of Green and Fifty-sixth street, a three-story flat building, 125 by 50 feet in size; to be of stone and terra cotta front, have all the modern plumbing, gas fixtures, hardwood interior finish and mantels, etc.

Architects Cowles & Ohrenstein: For J. G. Magill, a three-story flat building, 28 by 50 feet in size; to be erected at the corner of Sheridan avenue and Sixty-first street. To be of pressed brick and stone front, have the best of sanitary improvements, etc.

Architects Schroeder & Koster: For Doctor Froom, a two-story residence, 25 by 52 feet, to be erected at La Salle and Thirty-seventh streets; pressed brick and stone front, the best of improvements, furnace.

Architect A. Sandegren: For E. J. Bowes, four two-story residences; to be erected at Fulton street near Francisco. To be of stone fronts, have hardwood finish and mantels, gas fixtures, etc.

Architects Thomas & Fuller: For Miss Maggie Kehoe, a three-story and basement flat building at 4714 Champlain avenue, stone front, mantels, gas fixtures, heating.

Architects Fraenkel & Schmidt: For F. I. Bennett, at Washington avenue near Sixtieth street, sixteen two-story residences, cut stone fronts, tile roofs, etc. For Fred K. Root, six two-story residences, of pressed brick and stone fronts. For N. Mayer and S. Bloch, two three-story residences, at Drexel boulevard near Forty-third street, cut stone fronts, hardwood interior finish, electric light, etc. For Thomas Gordon, a two-story and basement residence, 32 by 45 feet in size; to be erected at Kenilworth; to be of frame, stone basement.

Architect Joseph Molitor: For A. Harris, at Brown street near Maxwell street, a four-story and basement store and flat building, 25 by 100 feet in size; to have a stone front, the sanitary plumbing, gas fixtures, white pine finish, etc.

Cincinnati, Ohio.—Reported by Lawrence Meudenhall:

The open fall has helped to reduce the deficiency in building, but still the figures presented below for comparison are not very cheering. However, I am safe in saying that our city is not the only one suffering in this direction:

	1893	1894
Total to November 1.....	\$3,352,048	\$2,765,421

These figures show a decrease in eleven months of \$586,627, which, when distributed among the various trades, do not make a very large deficit for each to bear.

Architect W. W. Franklin reports: For A. Braun, Cincinnati, a residence; materials: pressed brick, slate roof, furnace, hardwood, grates, mantel, gas, plumbing, stained glass, etc.; cost \$10,000.

Architects Crapsey & Brown report: For Scott Street M. E. church, Covington, Kentucky, a church edifice; materials: pressed brick, stone trim; slate roof, pews, stained glass, gas, plumbing, furnace, electric lighting, etc.; cost \$25,000. For Lincoln Park Baptist church, Cincinnati, Ohio, a church edifice; materials: brick, terra cotta and stone, slate roof, pews, hardwood, stained glass, furnace, baptistry, and all modern improvements; cost \$40,000.

Architect S. S. Godley reports: For A. Freiberg (J. and A. Freiberg), a fine residence; materials: pressed brick, stone trim, hardwood finish, floor tiling and wainscot, furnace, grates, mantels, stained glass, plumbing, gas, etc.; cost \$20,000. Also for Riverside Elevator and Malt Company, Riverside, Ohio, an elevator, brick and iron construction, with all modern improvements; cost \$30,000.

Architects John H. Boll & Co. report as follows: For A. Brunsmann, Price Hill, Cincinnati, a residence; materials: pressed brick, slate roof, furnace, grates, mantels, gas, plumbing, stained glass, etc.; cost \$12,000. For Robert J. Morgan, a dwelling; materials: pressed brick, slate roof, gas, plumbing, grates, mantels, blinds, etc.; cost \$5,000. For W. W. Granger, Cincinnati, two houses; materials: frame, shingle roof, gas, grates, mantels, plumbing, etc.; cost \$12,000. For Peter Beck, a flat building; size, 25 by 100 feet, three stories high; materials: brick and iron, grates, mantels, gas, plumbing, etc.; cost \$7,000. For Dudley Webb, Avondale, Ohio, two houses; materials: frame, slate roof, grates, mantels, gas, plumbing, stained glass; cost \$13,000.

Architects Briuk & Kunz report: For Philip Krug, a flat building; size, 40 by 100 feet, four stories; materials: pressed brick, slate and tin roof, store fixtures, grates, mantels, gas, plumbing, dumb waiter, etc.; cost \$20,000.

Cleveland, Ohio.—Very little new work costing more than \$5,000 is being started, although the weather has been remarkably fine for building. Many houses ranging in price up to \$2,500 are being built. The architects are quite busy completing the year's work and all report prospects for the spring as very good.

Architect W. W. Sabin has commenced the erection of a modern frame residence in East Cleveland, for Mr. Henry Taylor, of the W. Bingham Hardware Company. It will contain all improvements, hardwood, and will cost about \$6,000.

Architects A. H. Granger and F. B. Meade have recently moved their offices from the Society-for-Savings building to the Garfield Block, where they are admirably located in a suite of rooms on the ninth floor.

Architect S. R. Badgley reports: A stone church, at Norwalk, Ohio, 70 by 110 feet in size; completely fitted up with auditorium, Sunday-school rooms, seating, gas lighting, fan blower heating system, and plumbing; cost, \$30,000. At Delaware, Ohio, he has in preparation plans for a \$50,000 library building, for the Ohio Wesleyan University; to be built of white marble and completely finished in every way; fireproof construction will be used.

Architect A. D. Kent: Has a two-story brick block under process of construction, on Payne avenue; cost, \$10,000.

Architect R. H. Bissell, 236 Superior street: Has prepared plans for a \$7,000 frame residence, to be built at Warren, Ohio, for Dr. Alberston, of Cleveland; slate roof, steam or hot-water heat, plumbing, mantels and grates, hardwood.

Architects French & La Chance: Are building for Dr. G. W. Stevenson a three-story brick block and tenement, on Woodland avenue; to cost \$6,500; all modern conveniences.

Architect F. C. Bate reports: A stone and frame residence and barn, for Henry Treukemp, on Bolton avenue; to cost \$25,000. For J. W. Davis, he is

making plans for a \$50,000 stone residence, at Canton, Ohio; slate roof, hardwood, hot-water heat, plumbing, mantels and grates, and every modern convenience.

Architects Coburn & Barnum: Are taking figures upon a double frame residence, for Mr. F. W. Sears.

Architect C. W. Hopkinson: Is preparing plans for a \$5,000 frame Congregational church, to be built in West Cleveland.

Architects Coburn & Barnum have prepared plans for a frame residence for Mr. E. M. Waller, to be built at Ravenna, Ohio.

Architect E. E. Smith has under process of erection a \$6,000 frame residence for Mr. T. J. McMannus, of the city hall, on Lincoln avenue near Euclid avenue. It will be two stories, 32 by 48 feet in size, have slate roof, plumbing, hardwood, furnace heat, electric lights and bells, and tile floor in vestibule and bathroom.

Contracts are just being let for part of the work necessary for the erection of a tin-plate mill on Tod street, this city. J. A. Matthews, 312 Perry-Payne building, has the work in charge and will be superintendent. Several hundred thousand dollars will be expended in equipping the plant. All machinery necessary for the manufacture of tin plate, with boilers, engines, etc., will be required.

Architect W. D. Benes is remodeling a residence for Mrs. Mary A. Faman, on Detroit street. Plate and stained glass will be used, and hardwood finish and new mantel put in.

Architect C. F. Schweinfurth is building for himself, on Ingleside avenue, a fine modern stone residence.

Denver, Colo.—Architect J. J. Huddart: For Colorado Realty and Construction Company, a two-story brick dwelling; size 31 by 43 feet; cost \$5,000.

Architects Balcomb & Rice: For Ed Lewing, a two-story brick residence; size 36 by 49 feet; cost \$5,000.

Architect Frank Snell: For William T. Burleigh, a two-story brick dwelling; size 31 by 40 feet; cost \$9,500.

Architect J. J. Humphrey: For B. B. Lawrence, two-story dwelling, brick and stone; size 42 by 46 feet; cost \$5,000.

Architect W. H. King: For Dnnwoody Brothers, a two-story soap factory, brick; size 49 by 135 feet; cost \$15,000.

Architect William A. Fisher: For Mrs. C. A. Blakeney, a two-story brick dwelling; size 30 by 45 feet; cost \$5,000.

Architect James Burdock: For C. W. Thompson, a one-story store building; size 50 by 60 feet, brick; cost \$5,000.

Architects Varian & Sterner: For George H. Watson, a two-story dwelling, size 40 by 49 feet; cost \$8,000.

Architects Edbrook & Co.: For Barth Bros., alterations, etc., to brick dwelling, at a cost of \$5,000.

J. C. Helen will build a two-story brick dwelling, size 29 by 48 feet; cost \$9,000.

Detroit, Mich.—Architects Malcombson & Higgenbotham: For William Christy, a two and one-half story brick residence, size 30 by 60 feet; cost \$10,000.

Architects A. C. Varney & Co.: For the Wayne County Commissioners, Wayne, Michigan, a two-story laundry and vegetable building, size 30 by 144 feet; cost \$10,000. For Parke & Davis, a two-story brick warehouse, size 60 by 180 feet; cost \$8,000. For J. R. and R. J. McLaughlin, a bottling works and stables on east side of Third avenue; cost \$5,000.

Architect H. J. Rill: For Charles Bath, a block of residence apartments, size 58 by 114 feet; brick and red sandstone; all modern improvements; cost \$40,000.

Architects E. A. Walsh & Son: For Mrs. P. S. Chapoton, a two-story residence; brick and stone; cost \$9,000. For Thomas Adams, a two-story brick residence on south side of Cleveland avenue, near Woodward; cost \$5,000.

Architects Stratton & Gearing: For Dr. D. Ingliss, a two-story residence, brick and stone trimming; cost \$9,500.

Architect H. W. Chamberlain: For W. C. Lantner, a six-story apartment building; brick and stone; all modern improvements; size 48 by 103 feet; cost \$55,000.

Architect R. E. Raseman: For Theodore D. Buehl, a two-story store and flat building; cost \$7,200.

Louisville, Ky.—Architects Mauey & Dodd report as follows: St. Paul's Episcopal Church, location Fourth avenue and Victoria place; to cost \$50,000; to be faced with stone; size 103 by 160 feet; tower to be 80 feet high; seating capacity 800; slate roof, tile floors, etc. Residence for Mr. T. H. Glover; to cost \$7,000; brick and stone, three stories, slate roof; location Garvin place near Oak street. Residence for Mrs. Lockie Rhodes; to cost \$6,500; yellow brick, stone trimmings, slate roof; location Third avenue near Hill street. Two stores with flats above for Columbia Trust Company; to cost \$17,000; iron and brick fronts, metal roofs; location Market street between Second and Third streets. Three residences for Mrs. Mary Curran; to cost \$15,000; brick with stone trimmings, slate roofs; location Second and Breckenridge streets. Residence for Dr. Lewman; to cost \$10,000; brick and terra cotta, slate roof, three stories high.

Milwaukee, Wis.—Architects Marshall, Ryder & Stucker: For W. M. Horue, a two-story brick store and flat building; to cost \$5,000.

Architects Marshall & Ryder: For W. W. Wallace, a two-story frame residence, to cost \$6,000.

Minneapolis, Minn.—Architect A. L. Dorr: For the Central City Market Company, a market building, 330 by 337 feet in size; to cost \$200,000.

Architect Charles S. Sedgwick: For Mrs. F. E. Hale, a five-story business block, 91 by 132 feet in size; brick and stone; cost \$50,000.

Pittsburgh, Pa.—Architect J. N. Campbell: For A. Hilson, a three-story office building; brick and red sandstone; cost \$5,000.

Architect James F. Steen: For M. Kaufmann, a two-story brick and stone residence; all modern improvements; cost \$8,000.

The Emery M. E. Church are contemplating building a new church building, to cost about \$80,000.

Architect F. H. DeArment has prepared plans for the new Y. M. C. A. Building, to cost \$15,000.

Rochester, N. Y.—Architects Walker & Briggs have prepared plans and begun building operations for a 16-room school building for the city of Rochester; material to be of brick with stone trimmings; style Colonial; cost \$30,000. Block of twelve apartments for Mrs. Emil Kuichling, to be built of brick with stone trimmings, on South Ford street. Frame dwelling for Mrs. M. J. Morrow and Mr. George McAllaster. Brick and frame cottage for J. G. Davis, to be built on Lake avenue. Double frame dwelling for Mrs. C. C. Brown, on Birr Terrace; Colonial style; cost \$5,000.

Architect J. Foster Warner has prepared plans and begun building operations for a frame residence in the Colonial style, to be built on Culver street, for Wendell J. Curtis; the inside finish to be of hardwood in main rooms and hall; heated by furnace; gas, electric lighting and all modern improvements; cost \$10,000. For Josiah Anstice, a frame residence, to be built on Culver street; part of first story stone; the interior to be finished in hardwood, heated by indirect hot-water system; gas and electric fixtures, bells, speaking tubes and latest improvements; cost \$20,000. Also a frame stable, to cost \$3,000.

St. Louis, Mo.—Architect Charles R. Green: For L. H. Lightner, a two-story store and flat building; brick and stone; to cost \$40,000.

Architects Grable & Weber: For G. M. Hellman, a two-and-one-half-story brick and stone residence, 48 by 60 feet in size; cost \$20,000.

Architect F. C. Bousack: For J. A. Hanley, a two and one-half story residence; size 45 by 63 feet; brick, stone, with slate roof; cost \$12,000.

Architect J. D. DePombiray: For Carton & Faris, a three-story office building; size 49 by 107 feet; brick and stone, with composition roof; cost \$30,000.

Architect W. Levy: For S. A. Jenkins, a two and one-half story dwelling; size 26 by 50 feet; brick and stone; cost \$5,000.

St. Paul, Minn.—Architect C. N. Johnson: For city of St. Paul, a county hospital; to cost \$35,000.

Valuable Publications Free.

Any architect can secure valuable books of reference without cost by sending for the catalogues of materials, etc., noticed from month to month in these columns. Large sums are spent on these catalogues, and they contain much practical information. Many are art productions. They may be obtained free on application to those issuing them. In writing please mention THE INLAND ARCHITECT, and oblige the journal and the dealer.

REQUESTS FOR CATALOGUES AND SAMPLES.

Those wishing catalogues and samples sent them by dealers in general can have their names inserted under this heading free of charge. The only recompense desired is that the dealers who send catalogues to these addresses give THE INLAND ARCHITECT proper credit.

A. ETHRIDGE CARMODY, Architect, No. 1220 Sixteenth street N. W., Washington, D. C.

ALEXANDER HAY, Architect, 74 Baronne street, New Orleans, La.

HELENA PUBLIC LIBRARY, Helena, Montana.

JOSUE SMITH SOLAR, Architect, Santiago de Chile.

UNIVERSITY OF CALIFORNIA, Department of Drawing, Berkeley, Cal.

THE PRESERVATION OF METALS.

At the Montreal meeting of the American Society of Mechanical Engineers, an interesting paper was read on methods for preserving metal used in pipes, roofs, bridges, poles, construction work, etc. In conclusion, the whole question of how best to protect iron and steel from corrosion in all the varying conditions that the wants and usages of today demand, seems to resolve itself into several "Don'ts," as the best method of answering it, to wit:

Don't have any scale on the metal.

Don't paint it with anything but pure linseed oil and oxide of lead or graphite paints.

Don't forget that frequent inspection and care are very necessary.

Don't let the cost and interest accounts be the governing factors in the case of protecting any metal structure on whose continuity and strength human life and safety depend.

In comparing the two paints recommended, it may be well to add that a properly made graphite paint should prove more durable and a better protector than oxide of lead. Graphite has a strong affinity for metal surfaces, and experienced painters claim that even where light colors are desirable, graphite paint should be used as a priming coat. Again, graphite is impervious to the action of heat, cold, sea air, acid or alkali fumes, which are more or less destructive agents to lead paints.

The Joseph Dixon Crucible Company, Jersey City, New Jersey, have manufactured a pure linseed oil and graphite paint for over twenty-five years, and have some very convincing testimonials of its value.

HYDRAULIC MACHINERY.

We would call the attention of our readers to the advertisement of the Erwin-Welch Hydraulic Machinery Company calling attention to their automatic hydraulic pump, which placed in the basement of a dwelling and connected to the city water supply will pump and force soft water from cistern direct to house supply fixtures. The opening or closing of any faucets or bibbs on the soft-water system automatically starts or stops the pump. The pumping capacity of the pump is such that storage tank in attic is not required. Where water meters are used on the city water supply pipe and economy in the use of water is desired the pump may be so connected, in connection with a small storage tank, that there will be no waste of water required in the operation of this pump, as the exhaust of the pump would be connected back into the hard-water house-supply pipe, and the using of hard water for domestic requirements would afford the motive power for furnishing

ing a constant supply of soft water for household requirements. A large number of these pumps are used in this and foreign countries for increasing city water and artesian well pressure for the purpose of forcing water to the upper floors of buildings where the city or artesian well water will not rise, their largest sized high-duty pumps being used to increase the pressure twenty times. Their pump has been adopted by the United States Government Fish Commission, and was used by them for the purpose of circulating salt water at their exhibit at the World's Fair. The jury of awards of the World's Columbian Exposition and the Illinois Chapter of American Institute of Architects, judging the pump on its merits as to efficiency and mechanical construction, awarded the manufacturers a diploma and medal of merit. A descriptive circular with price list and detailed specifications will be sent upon application to The Erwin-Welch Hydraulic Machinery Company, 51 South Canal street, Chicago, Illinois.

CORRESPONDENCE SCHOOLS.

We mentioned last month the receipt of a number of publications relating to the "Correspondence Schools," at Scranton, Pennsylvania. Among these, and of most interest, are a large number of letters—nearly two hundred—written by students in respect to their experience and opinions of the system. It is the most original agency for technical education that has ever been devised, capable of an extension that has no visible limit, and portends a time when we will not set off a few of the most fortunate for education, but educate all up to the limits required in the application of the skilled arts. One effect will be to raise the standard of the ordinary courses in technical colleges and schools, because mediocrity can be attained at a tithe of the expense and in ways more congenial to most students.

The habit of writing out exercises is a good one, good in all kinds of mnemonic effort, and when to this is added the interest of a communication personally addressed, and the environment of a home, it is easy to discern the attraction of a correspondence system.

Among the papers mentioned is one sheet of examples in hydraulics that as a collection of educational problems is the best we have ever seen. When a set schoolbook is done, and the plates made, there is an end, but in the present system a tentative course is possible. Change and improvement can go on continually; not only this, the problems submitted can be nicely graded to the requirement and capacity of the student, and can, by the facility for change, be made relevant to particular examples or practice. —*Industry, San Francisco, California, October, 1894.*

AKRON PRESSED BRICK.

On the occasion of a recent visit to Akron, Ohio, the representative of THE INLAND ARCHITECT called upon the Akron Vitrified Pressed Brick Company, and through the kindness of the treasurer, Mr. William H. Hunt, some points were obtained which will be of interest to our readers.

The company has recently been reorganized, and starts out with almost unlimited capital and with largely increased facilities capable of meeting the greatest demands for this class of brick in any part of the United States. This is guaranteed by the fact that the Akron Vitrified Pressed Brick Company have now one of the largest and most complete works in the world.

The officers of the company are R. H. Wright, president, Hon. George W. Crouse, vice-president, E. R. Harper, secretary, and William H. Hunt, treasurer.

A new departure has been made in the manufacture of this brick, and it is of the first importance to architects to know the qualities claimed for them, and the certainty of at all times obtaining them without delay. Covering these points a quota-

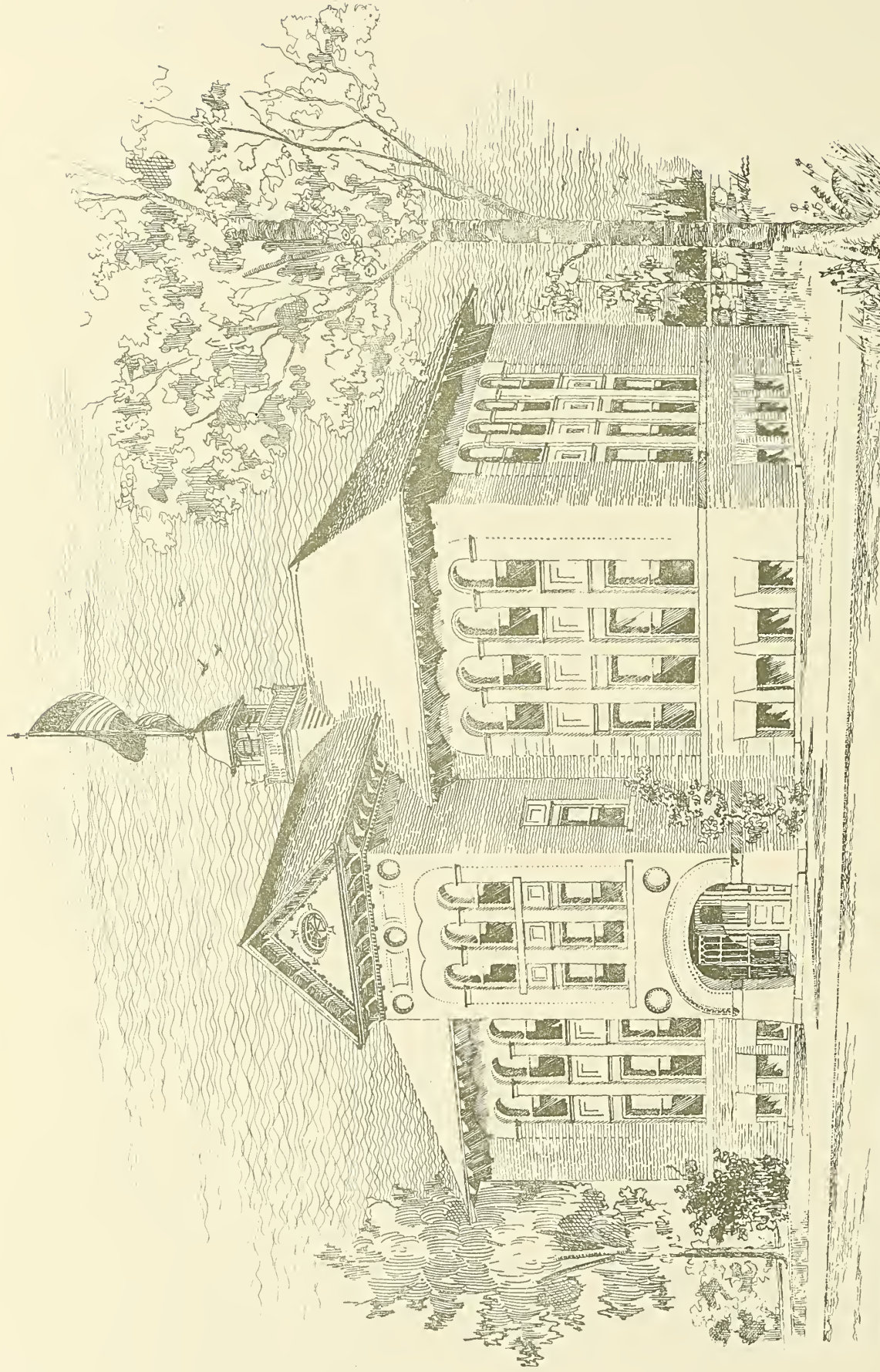
tion from the company's catalogue will give the clearest explanation possible:

"Modern architecture requires special brick to convey the idea of the design. None of the old style shapes can be combined to give the desired effect. As architects have hesitated to make an extra expense to their clients on account of requiring only a few special designs, we have arranged to keep our modern yard equipped for modern needs, so that an architect can design any shape he may choose, as many or as few as he desires, and such shapes will cost no more than any other of similar pattern, and above all they will be gotten out at once. All other pressed brick are (as advertised) soft brick, so as to be readily carved. Architects will please remember that it would be more difficult to carve the Akron Vitrified Pressed Brick than granite, thus making it too expensive, while we can mold any desired design far cheaper than any brick can be carved, and at the same time produce a much more pleasing and lasting effect. We have a very large stock of every design shown in this catalogue on hand, so no time may be consumed to the builder."

While it is claimed for these brick that they are cheaper than the poorest, they are in quality unexcelled. The faces of these brick show no granulation streaks. They are of uniform thickness. They will never fade. They will never become dirty, even ink leaves no stain on them. Their edges are straight and parallel. They cannot be injured by fire. They will never whitewash. They are so hard that they will cut glass. They are the only bricks that are uniform in color throughout. They are so dense that they can be laid closer in the wall than any other brick. That they offer the greatest resistance to weight has been fully substantiated by actual tests in Chicago, Pittsburgh and elsewhere. All architects can obtain their illustrated catalogue by addressing the Akron Vitrified Pressed Brick Company, Akron, Ohio.

HEATING AND VENTILATION.

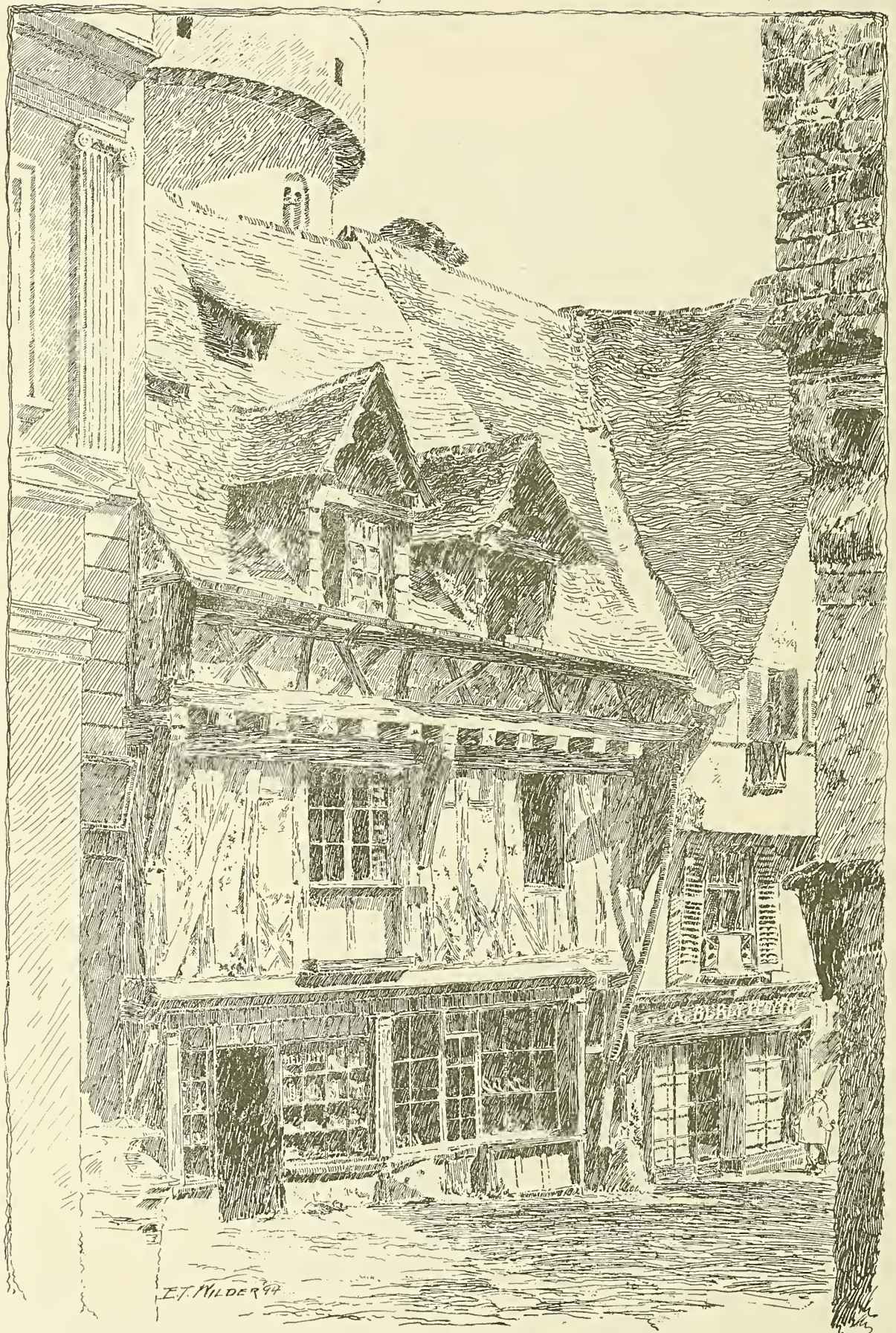
A new and enlarged edition of "Mechanical Heating and Ventilation," issued by M. C. Huyett, Chicago, contains tables, rules and data for the proper proportioning of all the parts, on a basis such as has been installed in all the work in which the author has taken part as manufacturer or engineer. The subject matter is indexed: Heating and ventilation essentials. Ventilation. Natural laws which must be regarded. How much ventilation. Initial velocities of air to rooms. Rules for determining the quantity of air required. Insufficient ventilation. Instances of failures. Tables and rules for determining the sizes for heat-risers and flues on a scientific basis and quickly usable. Tables and rules for ventilation on "times per hour." Tables and rules for ventilation per person. Fans, comparative capacities, "the only and most exhaustive analysis ever put in print." Rules for estimating capacity and powers of all makes of fans. Examples of application, comparative claims of manufacturers. Application of the Sturtevant rules. Application of the Huyett rules. Standard sizes of fans with details, square inches of blast wheels, pressures, true capacities, powers. Motors of all kinds, traps, pumps and receivers, with rules for rating the same for use in a mechanical system. Hot-blast heaters—rules for proportioning sizes required, in feet of 1-inch pipe. Automatic temperature regulation. Boilers and spaces required. Rules for ascertaining engine power when low pressure steam shall be used. United States government safety standard rule for determining boiler safety factors. Air pressure due to velocity. Air required for combustion. History of unsatisfactory heating plants and the causes. Full data regarding plants which have stood the test of many years' use, proving that when properly proportioned and honestly applied failure is impossible. "Analysis of all kinds of heating apparatus." The price is \$5; for sale by the author only.



PUBLIC SCHOOL FOR
MARINE CITY MICH.

EPW. C. VAN LEYEN
ARCHITECT + + +
DETROIT, MICH.

Ed. Schilling Del. '94



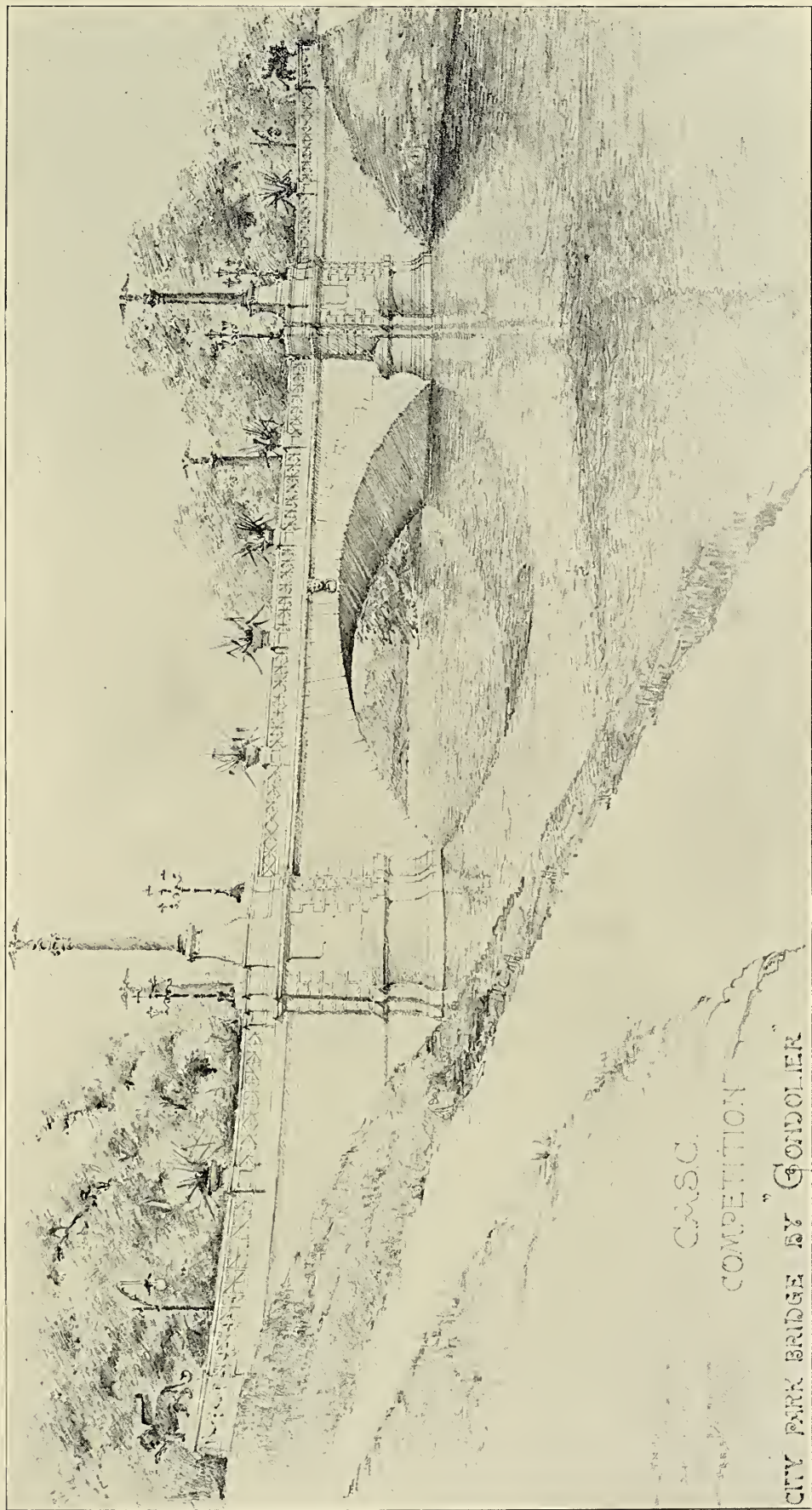
OLD HOUSES AT LAVAL.

RENDERING FROM PHOTOGRAPH, EDW. T. WILDER, CHICAGO.



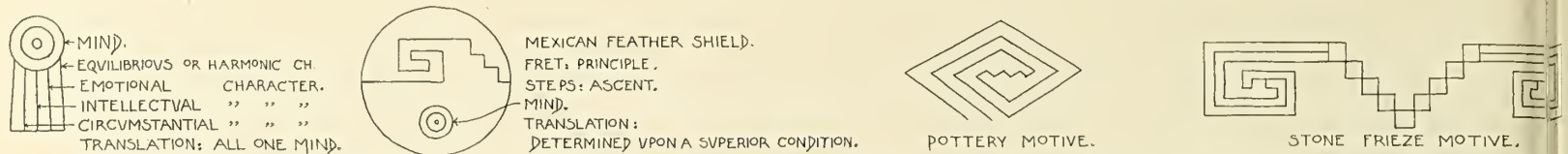
"PICTURESQUE CHICAGO." CHICAGO ARCHITECTURAL SKETCH CLUB COMPETITION.

SECOND PLACE: JOHN JOHNSON.

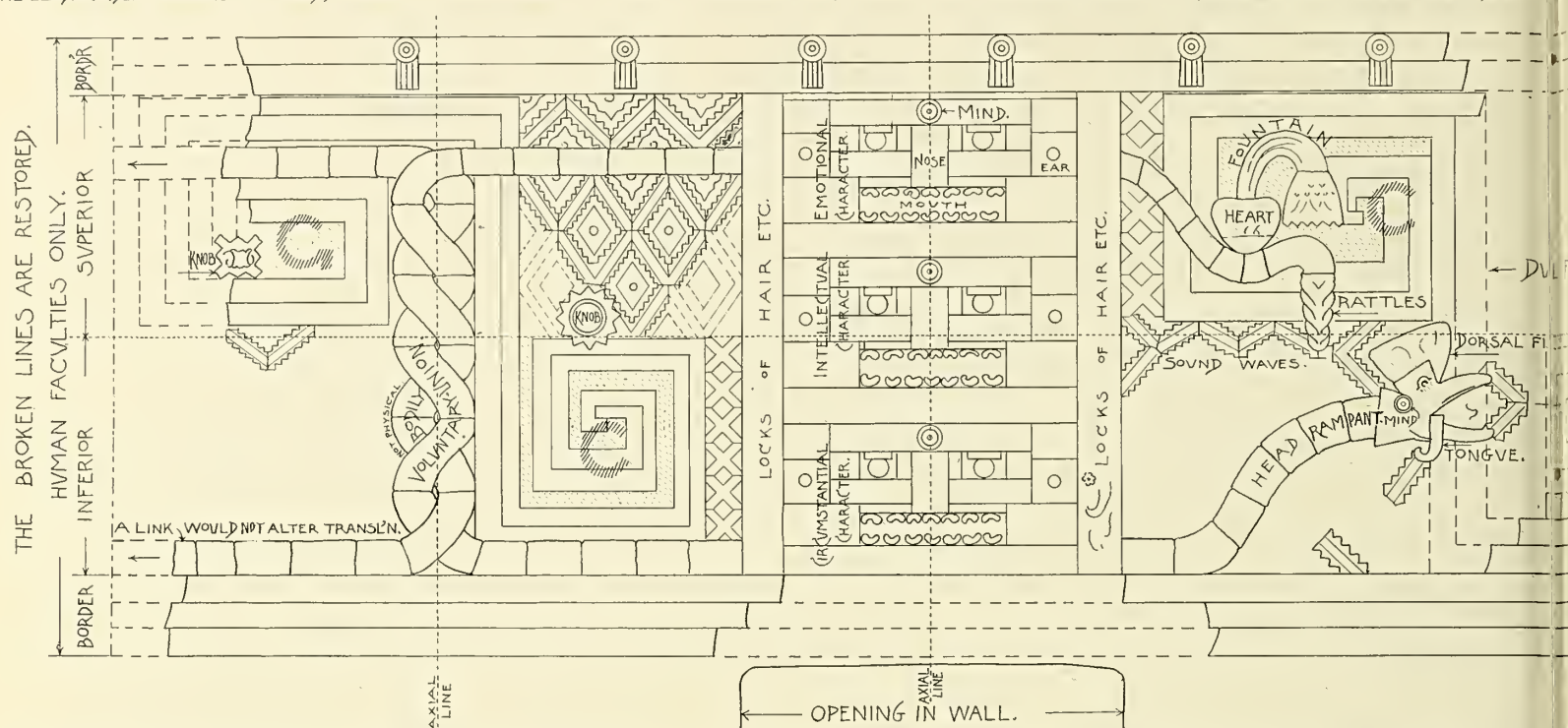


"CITY PARK BRIDGE." CHICAGO ARCHITECTURAL SKETCH CLUB COMPETITION

FIRST PLACE: JOHN JOHNSON.



THE LEADING IDEA: ONENESS OF MIND; STAIRS: THE PRINCIPAL FEATURE OF CONSTRUCTION; STEPS: THE PRINCIPAL MOTIVE OF DESIGN; HAVE THEIR PRECEDENTS



BASIS: 1ST: HEBREW STYLE OF ARCHITECTURE. 2ND: PICTORIAL CHARACTER OF HEBREW ART. 3RD: A CLASS OF PEOPLE UNCONSCIOUSLY REPRESENTING THE IDEAL INTERPRETED. 4TH: COINCIDENCE IN THE WORDS OF "I TELL YOU THAT, IF THESE (DISCIPLES AND FOLLOWERS) SHALL HOLD THEIR PEACE, THE STONES WILL CRY OUT" "BUT MY WORD SHALL NOT PASS AWAY." "THE HOUR COMETH WHEN SHALL I COME." IMMEDIATE PARALLEL: EQUAL RESPONSIBILITY AND MUTUAL DEPENDENCE OF SPIRITUAL MAN AND WOMAN FROM THE FIRST, CORRESPONDENTLY UPON ONE MEAN. MATH. XIX. MARK X. 100

TRANSLATN: MAN, HEARING THE IMPULSES OF THE PURE HEART, LISTENING TO ITS WARNING, ACTING ON THAT EVIDENCE, BY OBSERVING THIS CONSCIOUSNESS, EL

REFERENCE TO DRAWING:	Three Reptile thro' upper face ears, tail with superimposed heart, (i.e love) and fountain.	Sound waves to middle face ear from rattles.	Reptile rampant, body thro' lower face jaw.	Rattles connected by sound waves with reptiles head, characterized by dorsal fin and drooping tongue	10
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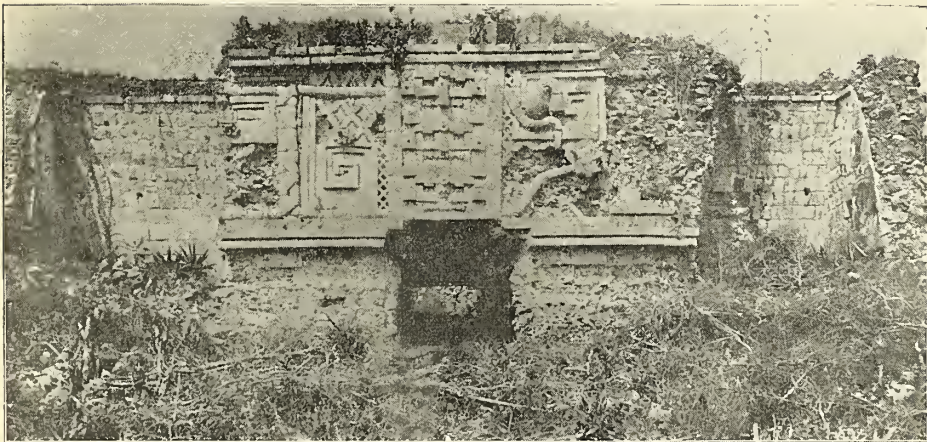
distinguished by crosses.	Reptile coils and disposal.	Reptiles counter, difference of knobs.	Rise of fret.	Identified by crosses.	Fret above axial line.	Knob in "G" evidently associated with corresponding knob at right also above axial line.
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TION SUPERIOR TO FORMAL MARRIAGE THAT ALONE HOLDS FROM FALLING OUT OF THE PASSAGE BETWEEN WORLDS OR STATES.

Fret rising above reptile coils.	Fugitive connection of bodily coils joining the two reptiles.	Opening under the three faces representing an impending fall.	Longitudinal borders of the course, connecting destroyed features of building.	"In my Father's house are many mansions." "Let each abide where he was called."
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SIGN WRITING IN VXMAL.

YVCATAN, CENTRAL AM



ILLUSTRATING THE ARTICLE "THE PASSING OF GOTHIC ARCHITECTURE"
LANGUAGE EXPRESSION OF

CHICHENITZA, YUCATAN.
FROM A.P. MAUDSLAY'S COLLECTION OF PHOTOGRAPHS.
FIELD COLUMBIAN MUSEUM, CHICAGO.

TRANSLATION:

THIS MAN'S WARNING SPRINGS FROM A PURE SOURCE.

Stature Rattles Fountain Dorsal fin Head of statue

THE CAVEABLE FOR REFINING THE SELF-LIVING IS IN THAT

over. Baking. Snakes coiled ready upon itself. No right and left hand connection. Dart between and over in center of frets.

PRINCIPLE SUSTAINING THE SPIRITUAL BRIDE AND

frets. (See above) Bracket (right structural necessity) Sound waves composing the bodies of reptiles and fitting the fret.

BRIDE-GROOM UPON THE CROSS WHICH IS BETWEEN (FROM

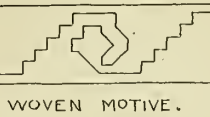
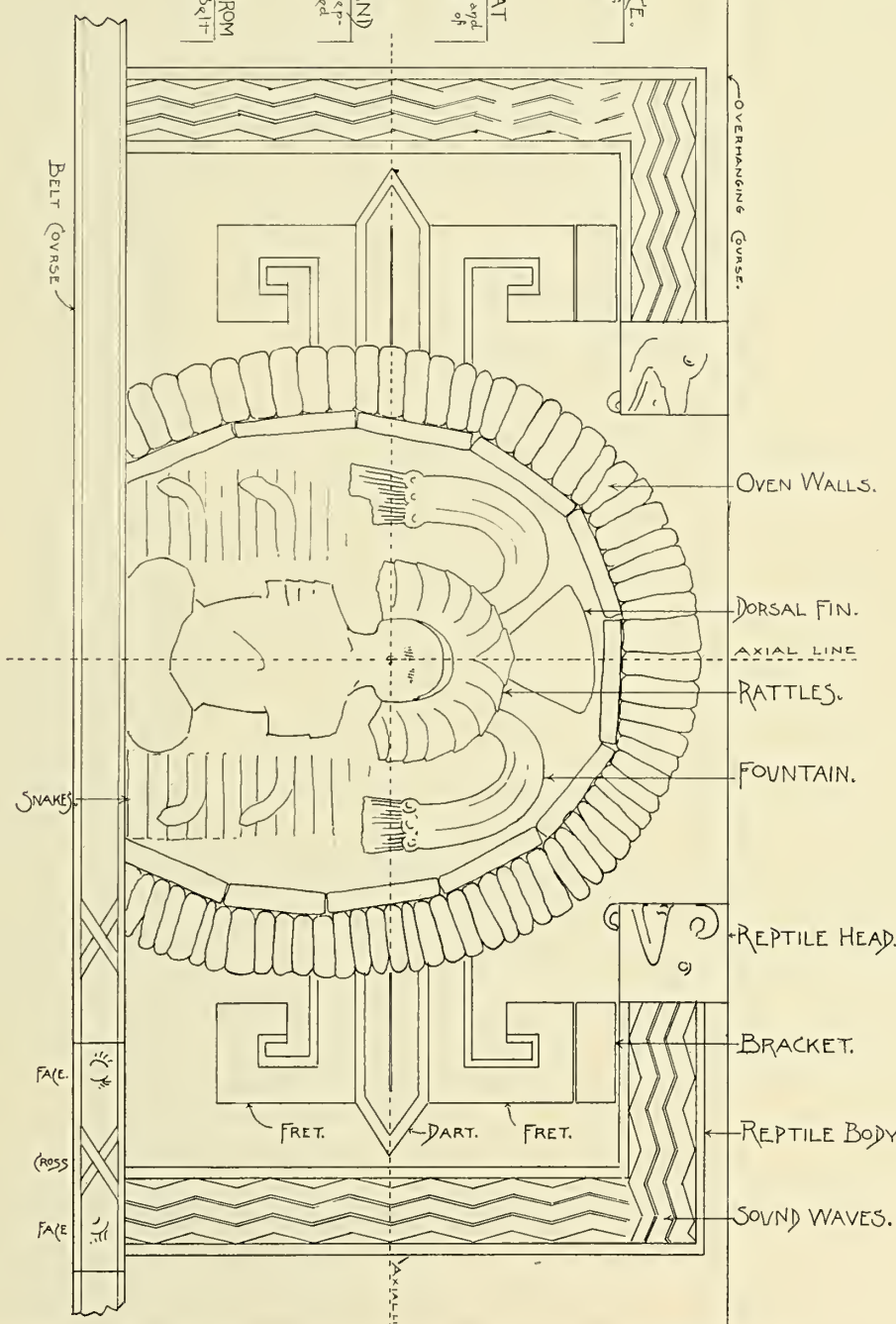
right and left) Surrounding left course of crosses between right hand and left hand marks which are probably faces.

ONE TO THE OTHER) THEM.

course connecting left right. Faces.

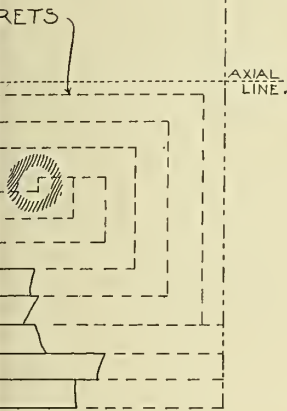
Conrad Bryant Schaefer.
Chicago, October 22, 1894. (2)

SIGN WRITING OVER A DOORWAY.



WOVEN MOTIVE.

SCRIPTURES ONLY.



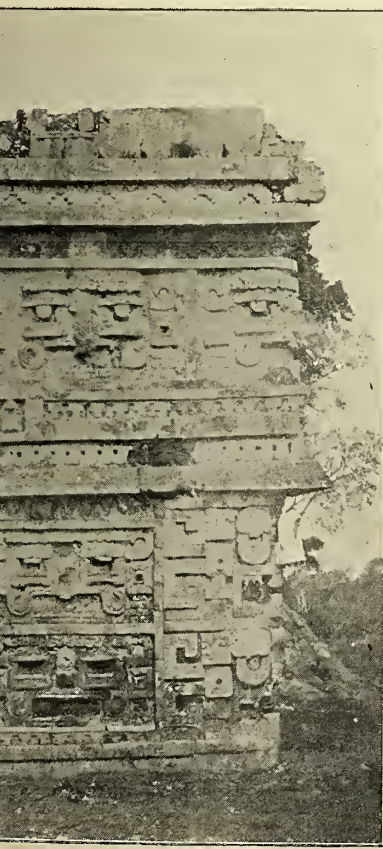
SCRIPTURES ONLY.

TEAZARENE TEACHER, BY ANTICIPATION AS:
TELL YOU PLAINLY. "AND BY PANTOMIME."
(WITHOUT FORESTALLMENT.)
A PRINCIPLE "O" TO THE HIGHER
"O" rising to higher fret "C" and

OUND FORCE, AN ASCENDING CONNEC-
ed sound waves. steps elsewhere with
frets. (See above).

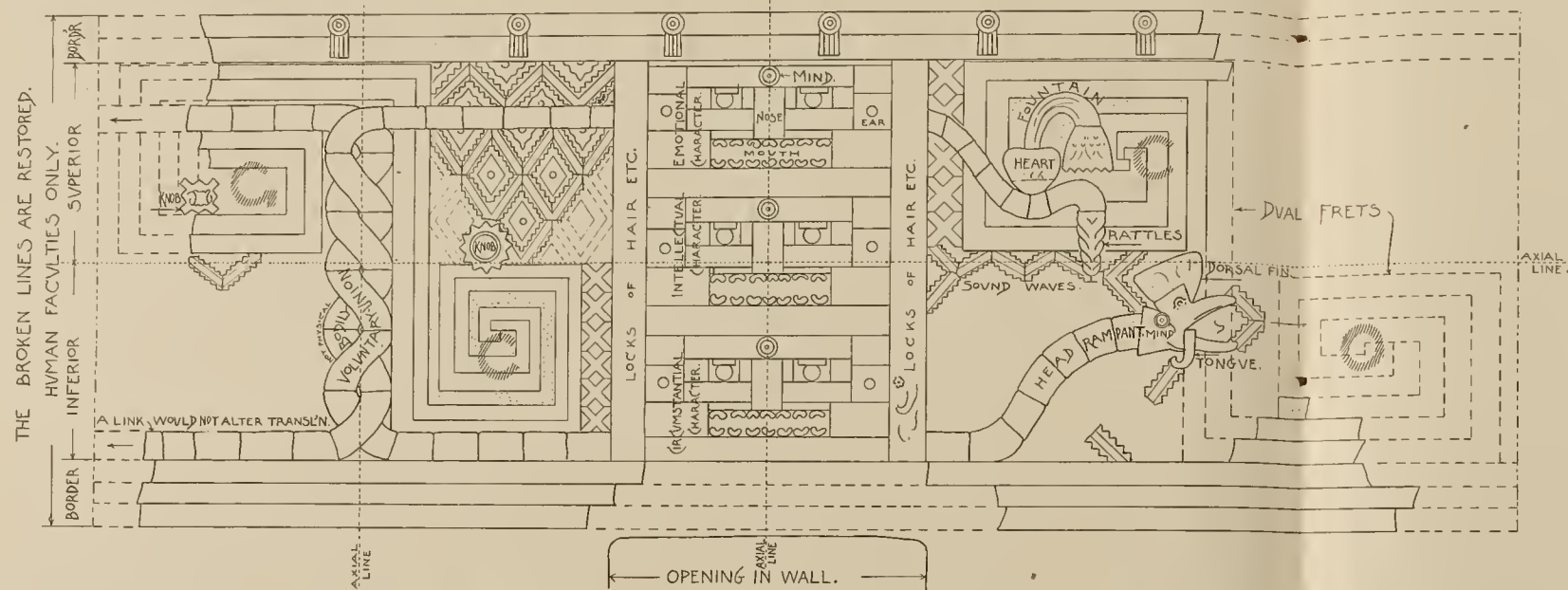
St. John XIV, 2.
1 Cor. VII, 20. (1) Conrad Bryant Schaefer.
Chicago, October 18, 1894.

ICA.





THE LEADING IDEA: ONENESS OF MIND; STAIRS: THE PRINCIPAL FEATURE OF CONSTRUCTION; STEPS: THE PRINCIPAL MOTIVE OF DESIGN; HAVE THEIR PRECEDENTS IN THE SCRIPTURES ONLY.



BASIS: 12: HEBREW STYLE OF ARCHITECTURE. 22: PICTORIAL CHARACTER OF HEBREW ART. 32: A CLASS OF PEOPLE UNCONSCIOUSLY REPRESENTING THE IDEAL INTERPRETED 4: COINCIDENCE IN THE WORDS OF THE NAZARENE TEACHER, BY ANTICIPATION AS: "I TELL YOU THAT, IF THESE (DISCIPLES AND FOLLOWERS) SHALL HOLD THEIR PEACE, THE STONES WILL CRY OUT." "BUT MY WORD SHALL NOT PASS AWAY." "THE HOUR COMETH WHEN I SHALL TELL YOU PLAINLY." AND BY Pantomime. IMMEDIATE PARALLEL: EQUAL RESPONSIBILITY AND MUTUAL DEPENDENCE OF SPIRITUAL MAN AND WOMAN FROM THE FIRST, CORRESPONDENTLY UPON ONE MEAN. MATH. XIX. MARK X. I COR. VII. (WITHOUT FORESTALLMENT.)

TRANSLATION: MAN, HEARING THE IMPULSES OF THE PURE HEART, LISTENING TO ITS WARNING, ACTING ON THAT EVIDENCE, BY OBSERVING THIS CONSCIOUSNESS, ELEVATES A PRINCIPLE "O" TO THE HIGHER

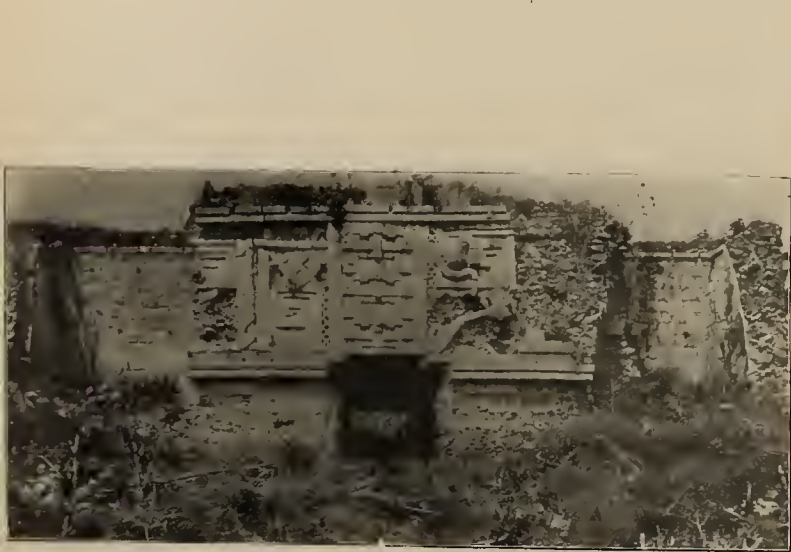
REFERENCE TO DRAWING: Three Reptile thro' upper face ears, tail with superior faces. posed heart, (i.e. love) and fountain. Sound waves to middle face. Reptile rampant, body thro' ear from rattles. Rattles connected by sound waves with reptile's head, characterized by dorsal fin and drooping tongue (i.e. confidence and submission). lower fret "O" rising to higher fret "C" and head, associated with corresponding knot at right, also above axial line. Packed sound waves. Steps elsewhere with frets. (See above).

PLANE "C": MUTUAL DEPENDENCE OF OPPOSITES ELEVATES THE PRINCIPLE "C" TO THE STILL HIGHER PLANE "G" AND UNITES THE TWO INVISIBLY THRO' A SOUND FORCE, AN ASCENDING CONNECTION SUPERIOR TO FORMAL MARRIAGE THAT ALONE HOLDS FROM FALLING OUT OF THE PASSAGE BETWEEN WORLDS OR STATES.

Fret rising above reptile coils. Fugitive connection of bodily coils joining the two reptiles. Opening under the three faces representing an impending fall. Longitudinal borders of the "in my Father's house are many mansions." St. John XIV. 2. course, connecting destroyed. Let each abide where he was called. I Cor. VII. 20. features of buildings.

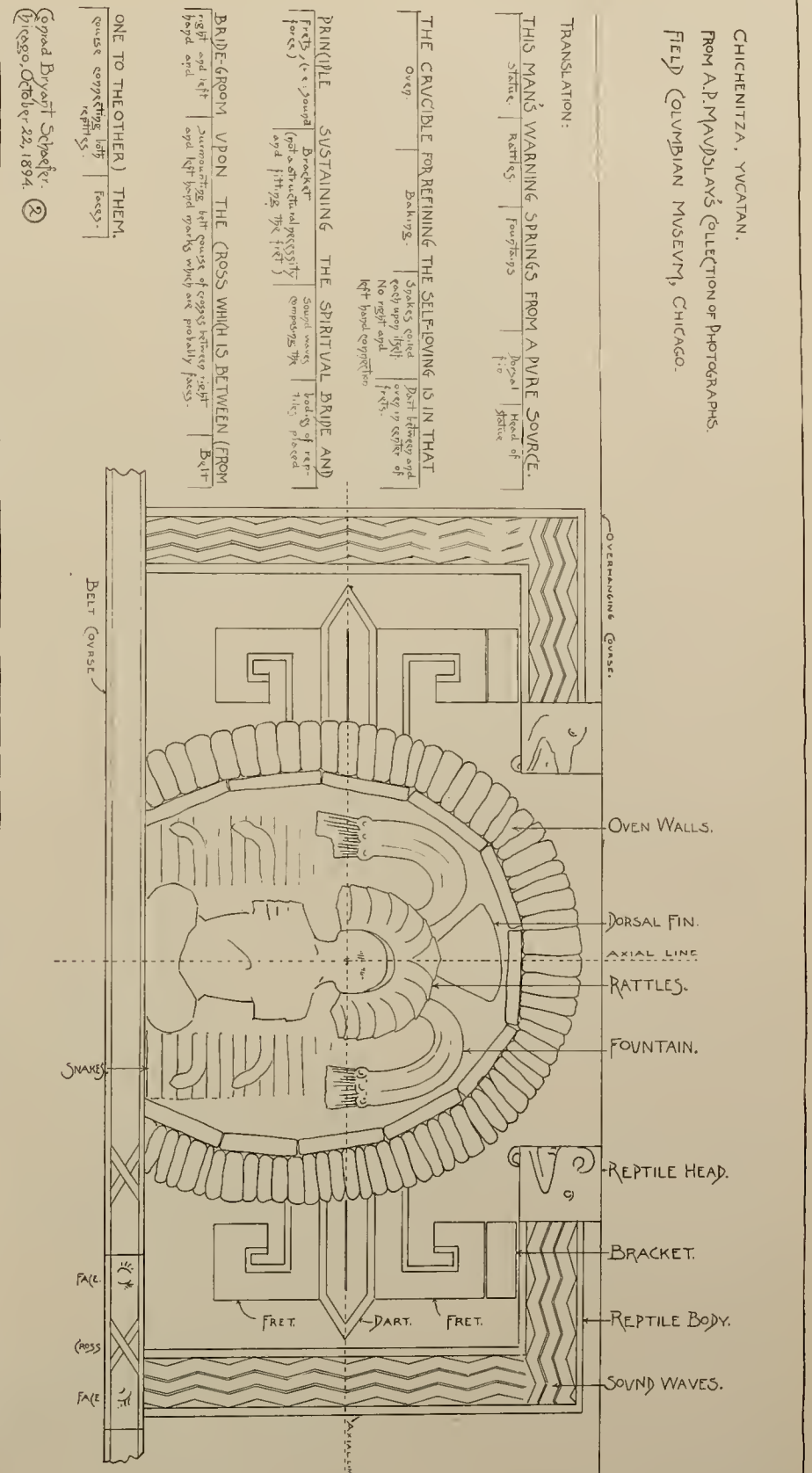
Conrad Bryant Schaefer. Chicago, October 18, 1894.

SIGN WRITING IN YUCATAN, CENTRAL AMERICA.



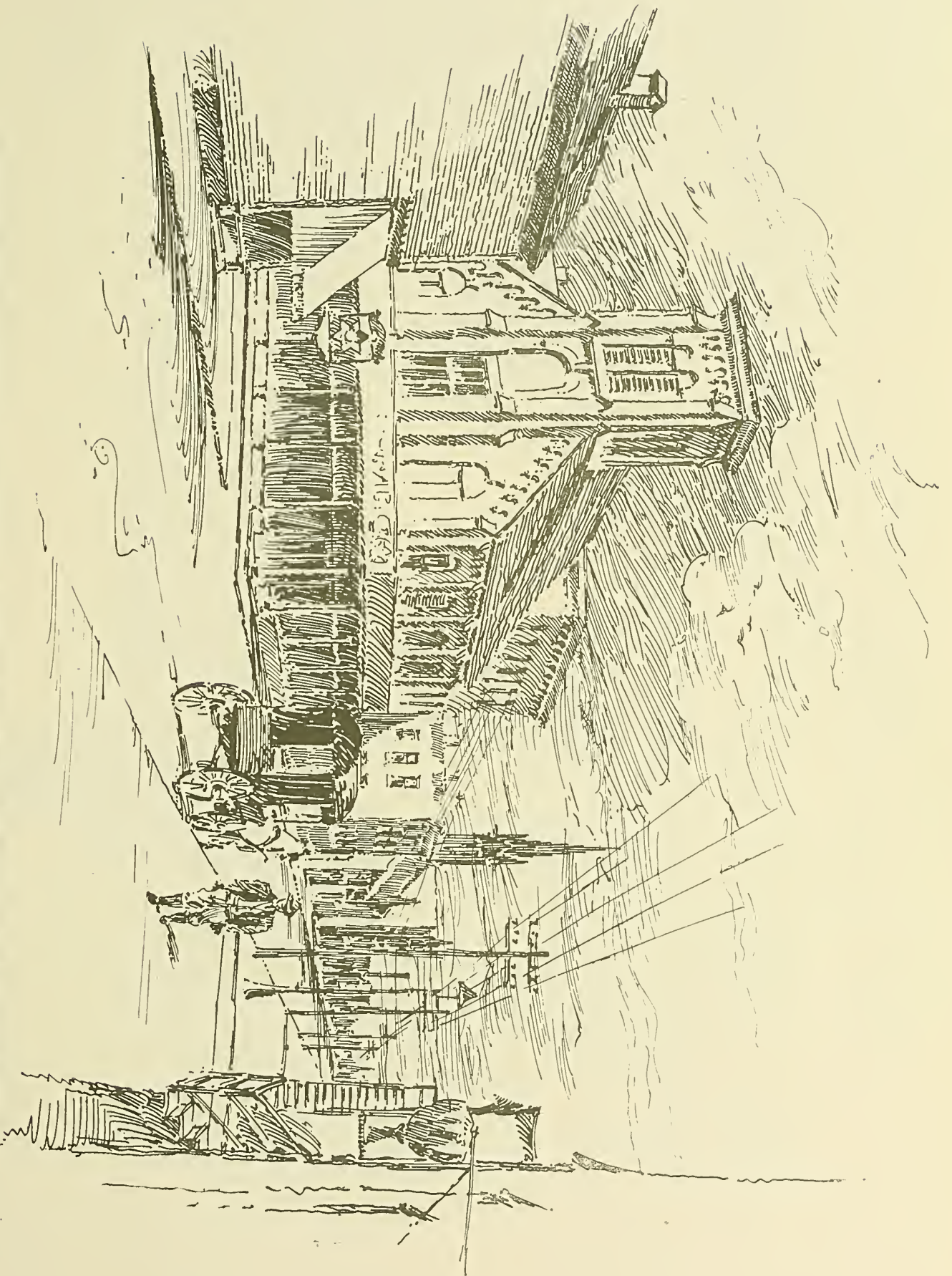
ILLUSTRATING THE ARTICLE "THE PASSING OF GOTHIC ART," IN THIS NUMBER, BY CONRAD BRYANT SCHAEFER. LANGUAGE EXPRESSION OF ORNAMENTAL MOTIVES.

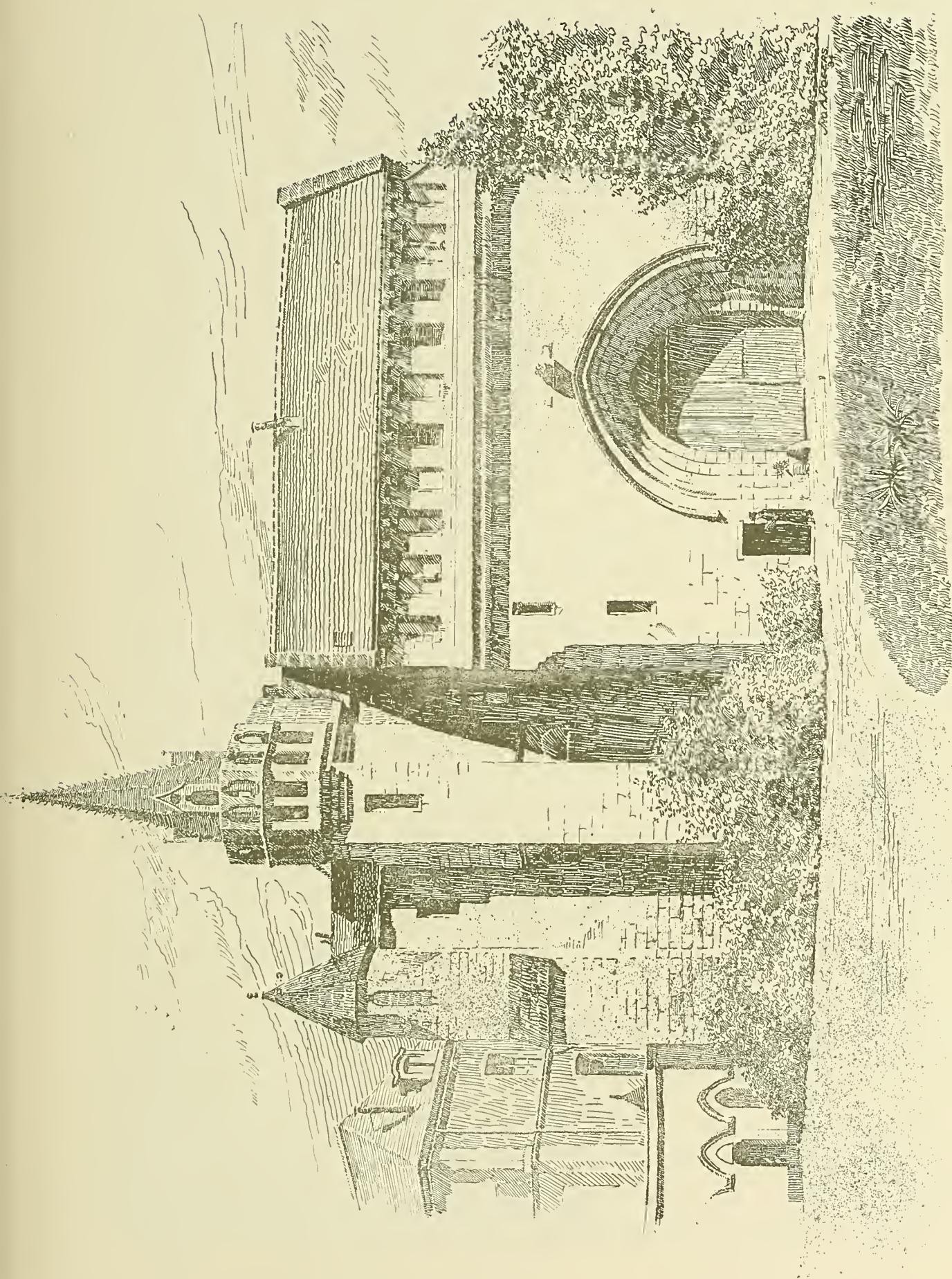
SIGN WRITING OVER A DOORWAY.



"PICTURESQUE CHICAGO." CHICAGO ARCHITECTURAL SKETCH CLUB COMPETITION.

SECOND PLACE: JOHN JOHNSON.





ABBEY OF MARMONTIER, XIII CENTURY.

JOHN A. ROGERS, DEL. CHICAGO.

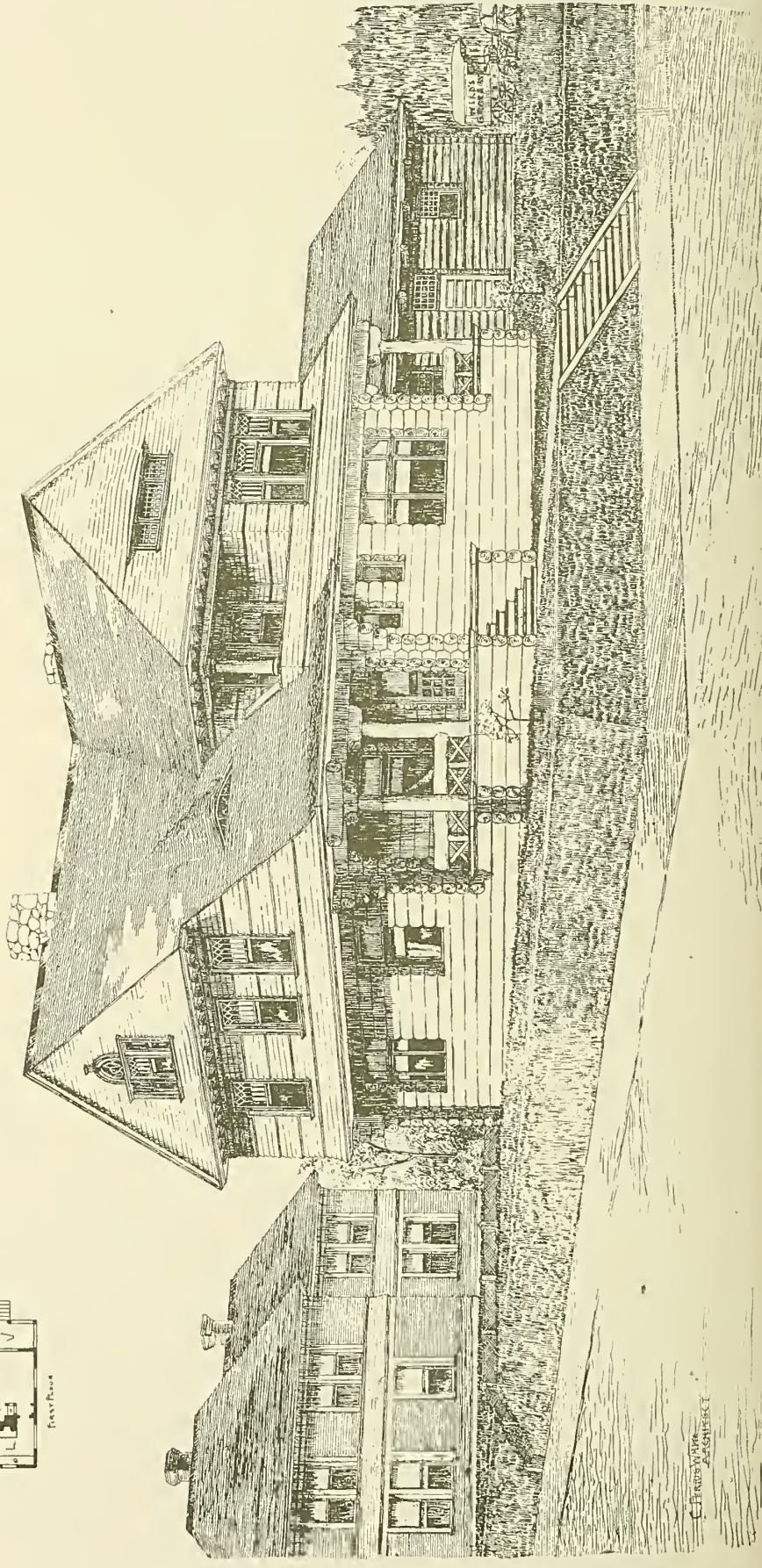
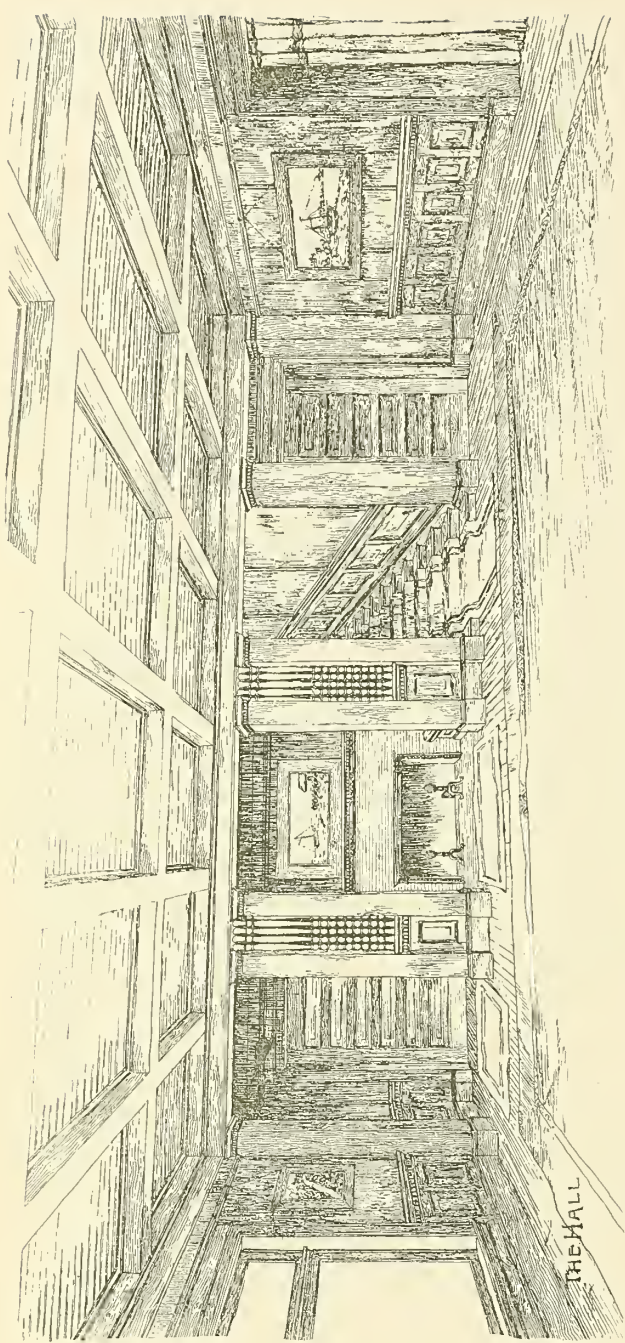
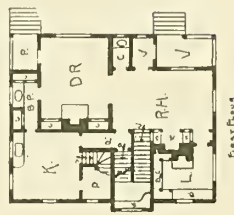


RESIDENCE OF MRS. A. D. WHEELER, EDGEWATER, ILLINOIS.

GEORGE W. MAHER, ARCHITECT, CHICAGO.

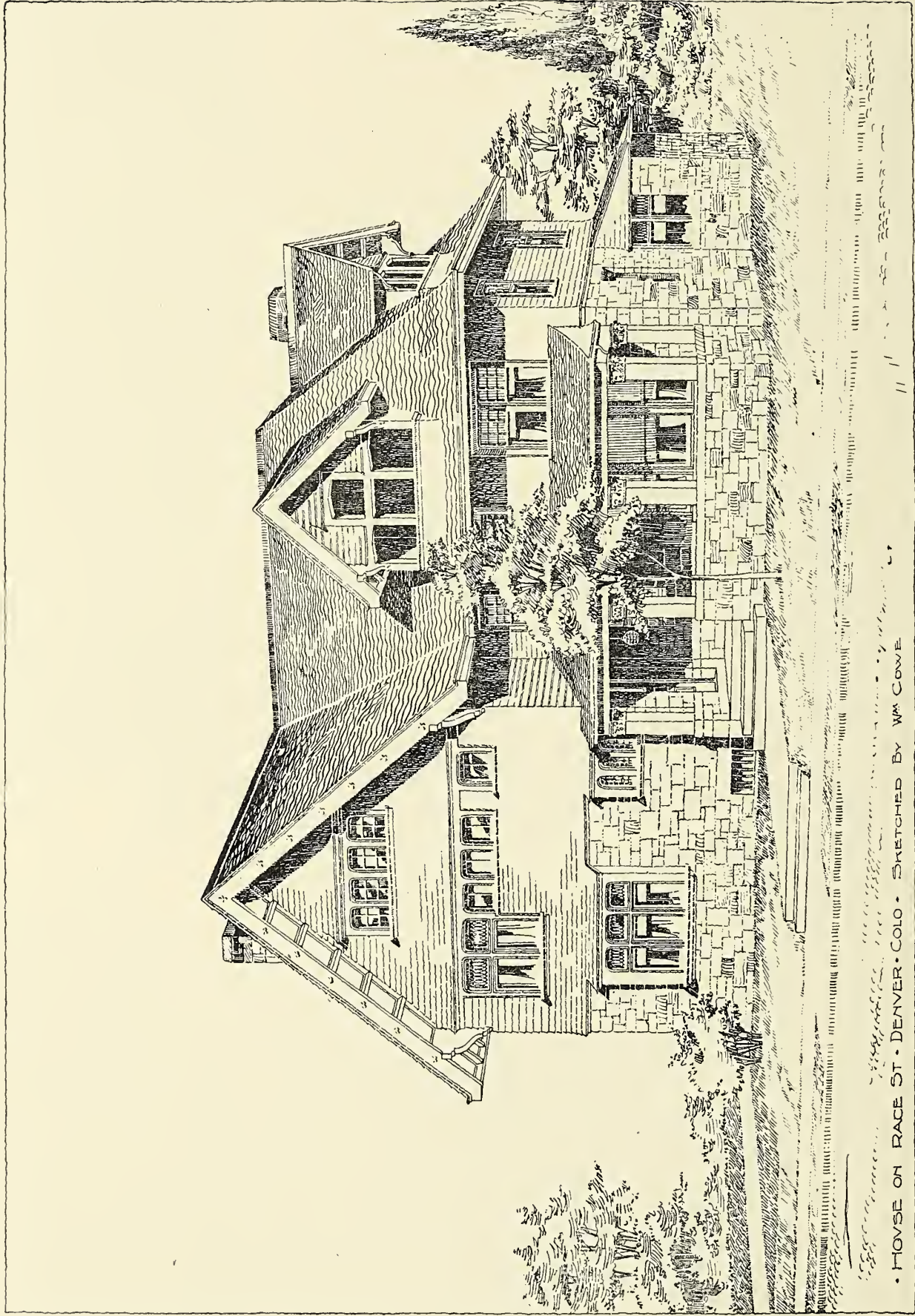
INLAND ARCHITECT PRESS.





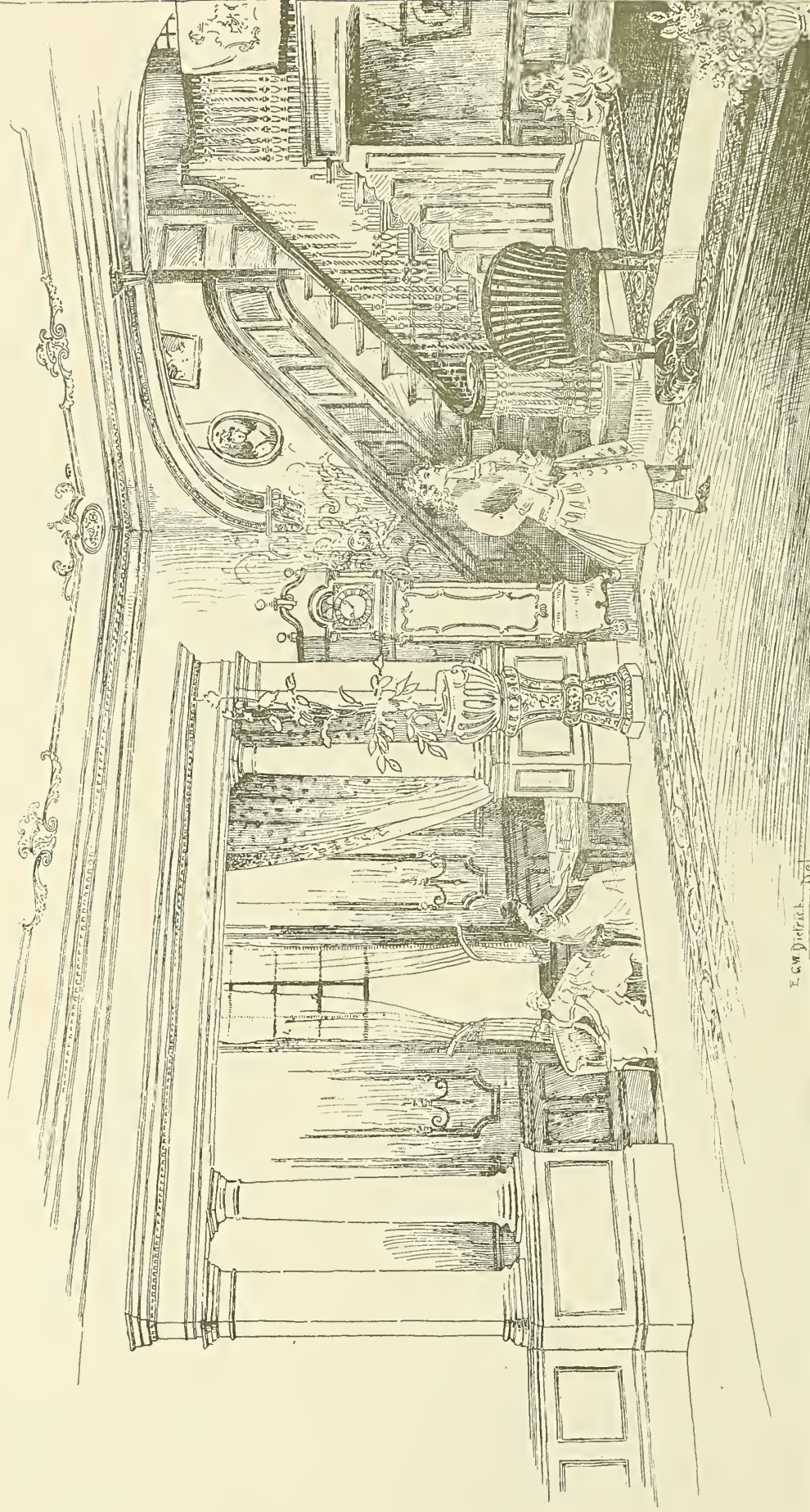
HOUSE FOR HIMSELF, BY C. FERRIS WHITE, ARCHITECT, EVERETT, WASH.

C. FERRIS WHITE
ARCHITECT

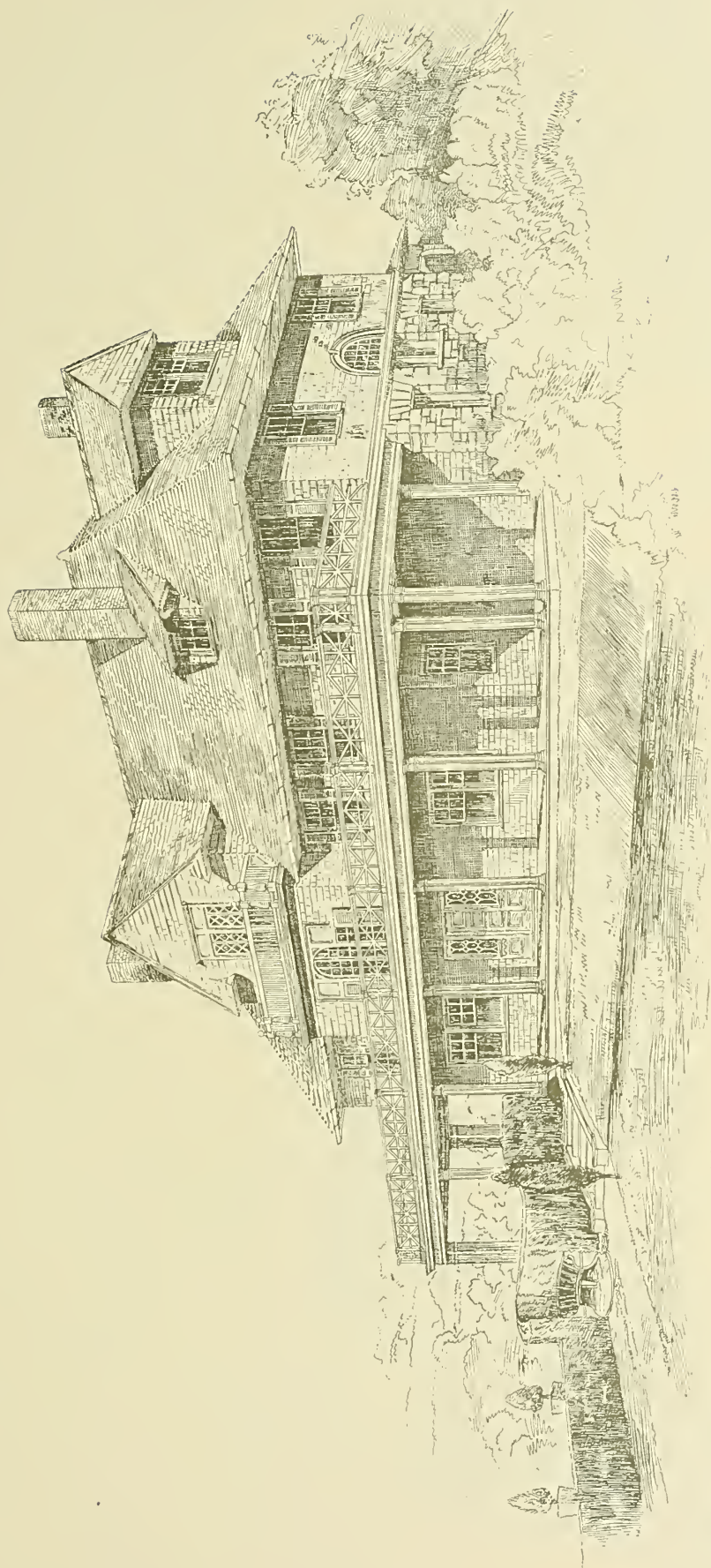


• HOUSE ON RACE ST. • DENVER • COLO. • SKETCHED BY WM COWE

Hall for House at Lakewood, N. J.
E. G. W. DIETRICH, ARCHITECT, NEW YORK

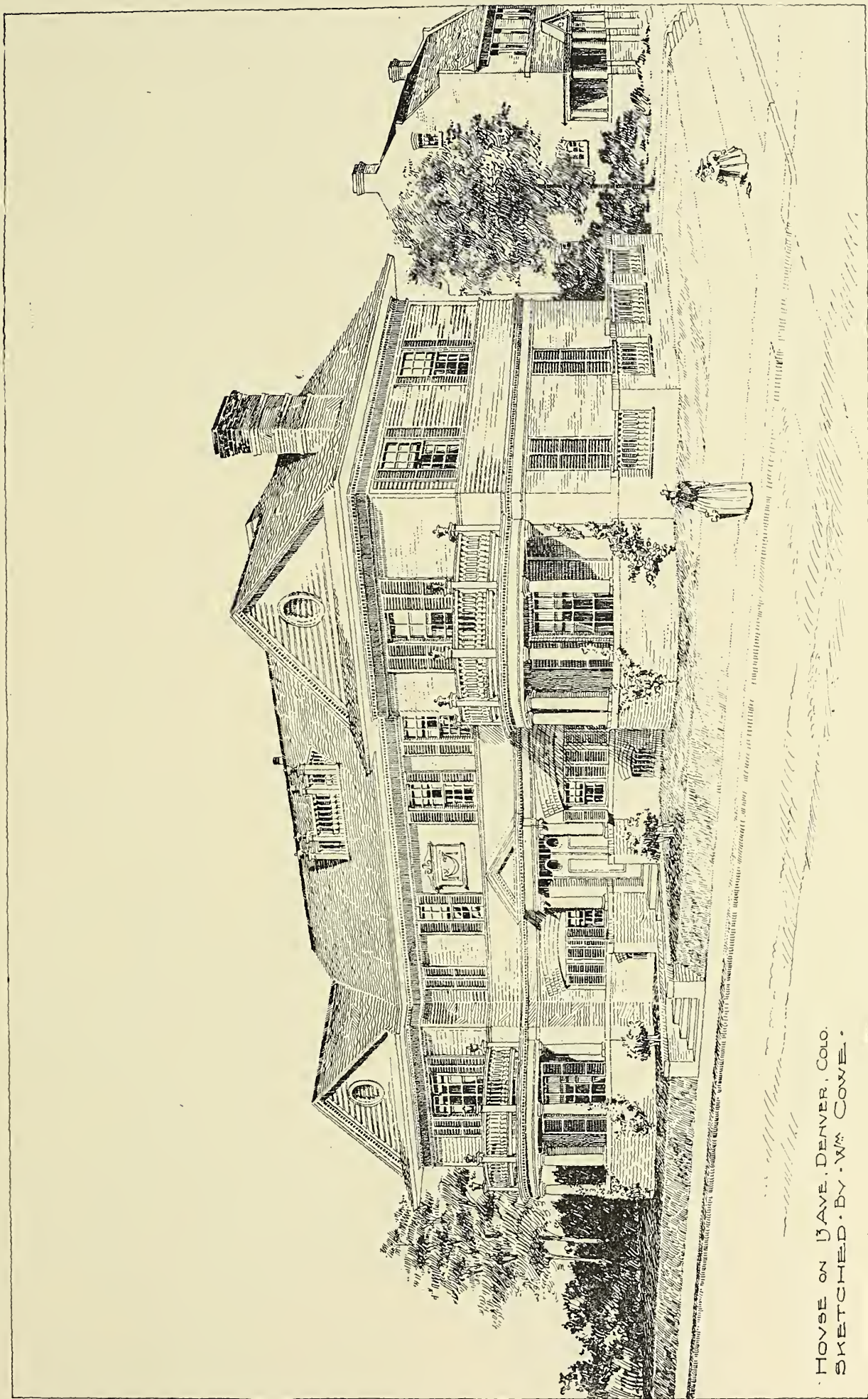


E. G. W. Dietrich, Del.

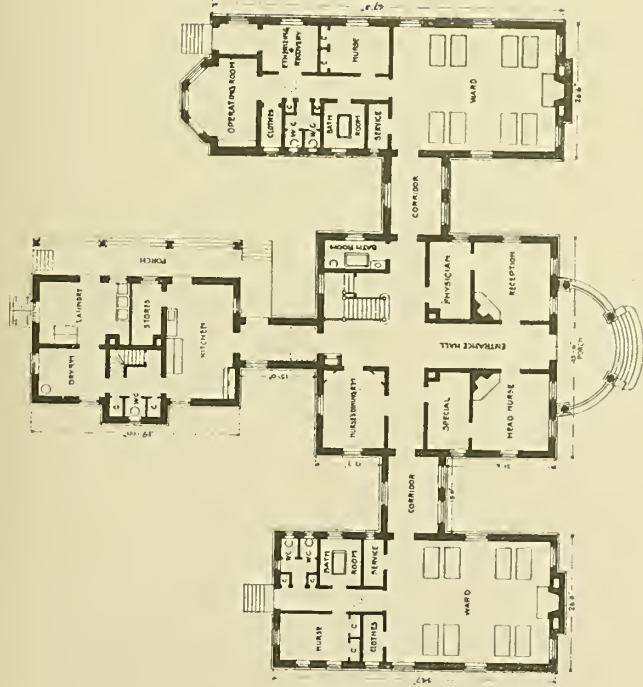


E.C. Thompson Architect & Builder, N.Y.

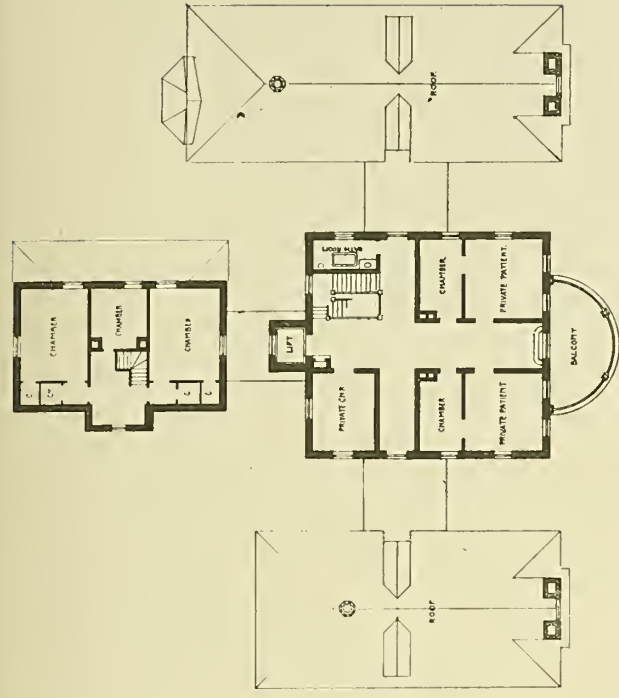
21-150 for 12th Floor E.C.
840-1111



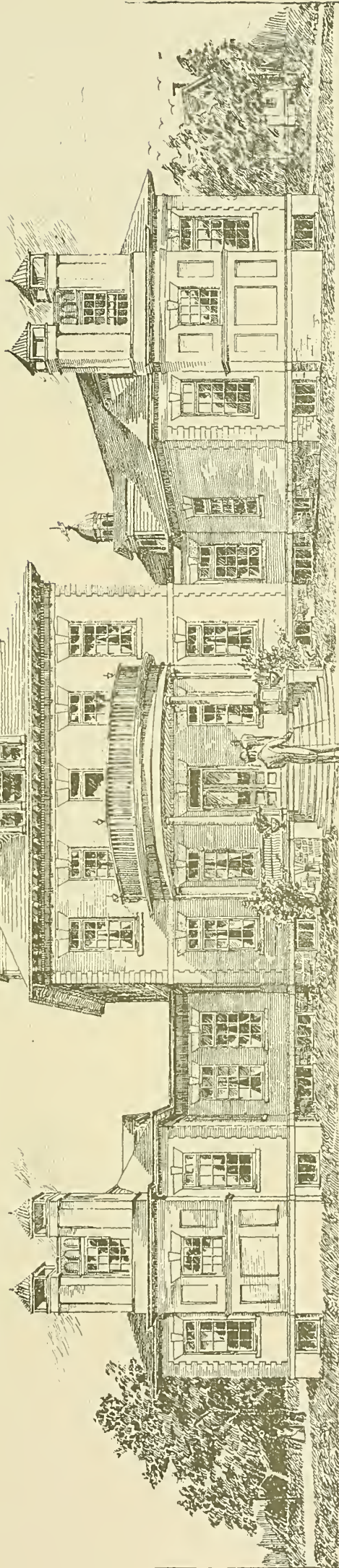
HOUSE ON 13 AVE., DENVER, COLO.
SKETCHED BY W. W. COWE.



PRINCIPAL FLOOR.



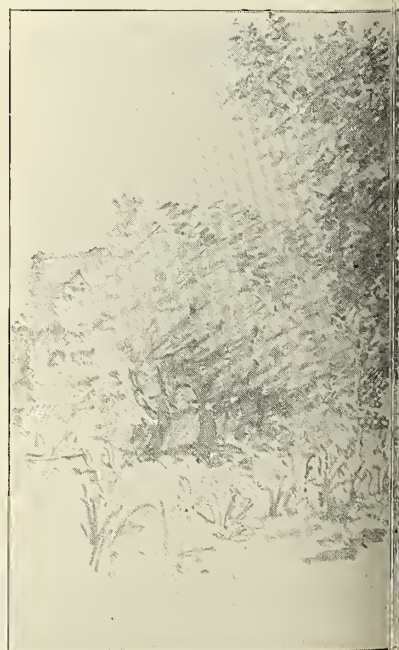
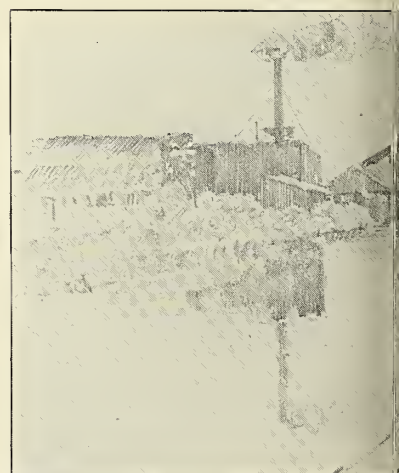
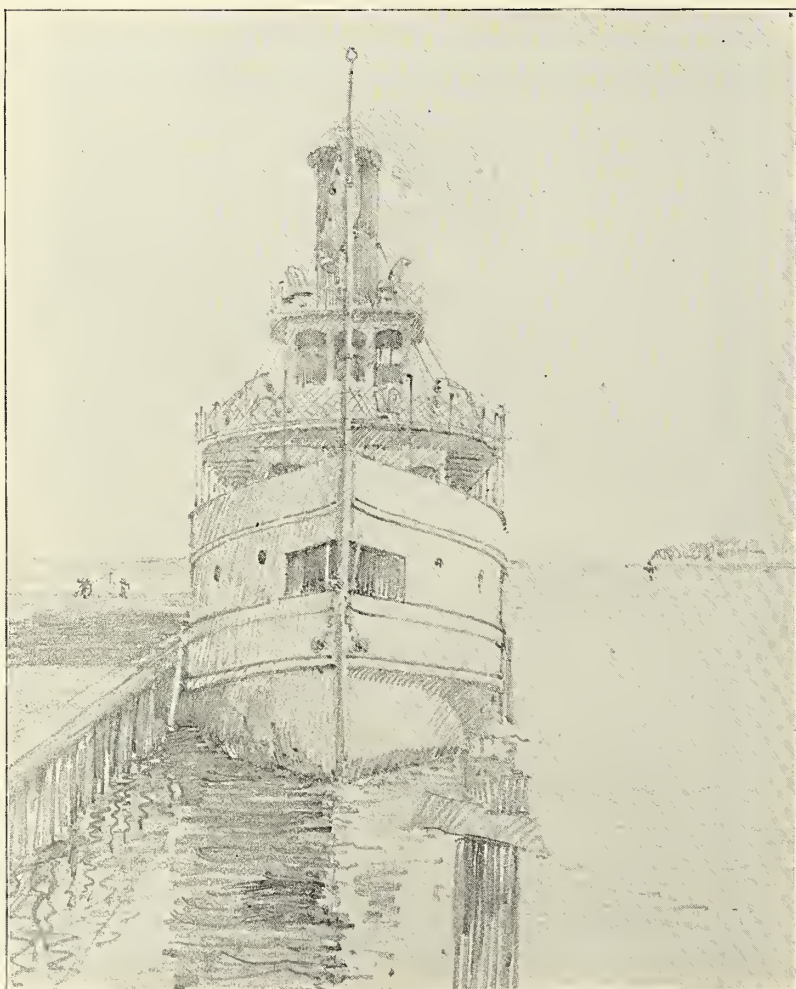
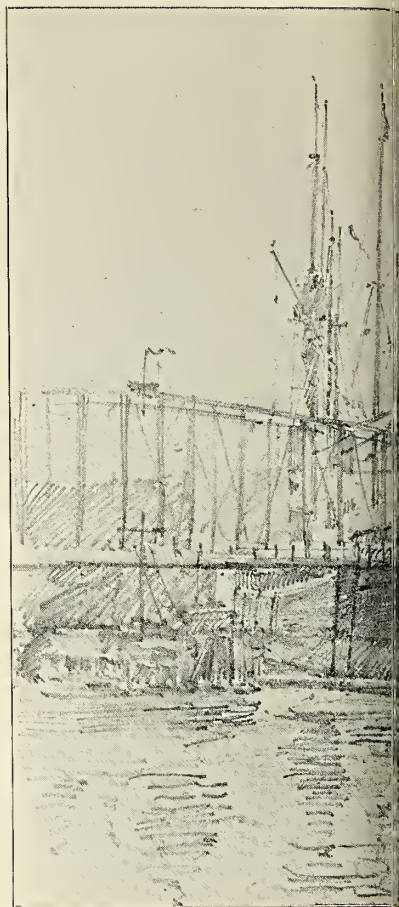
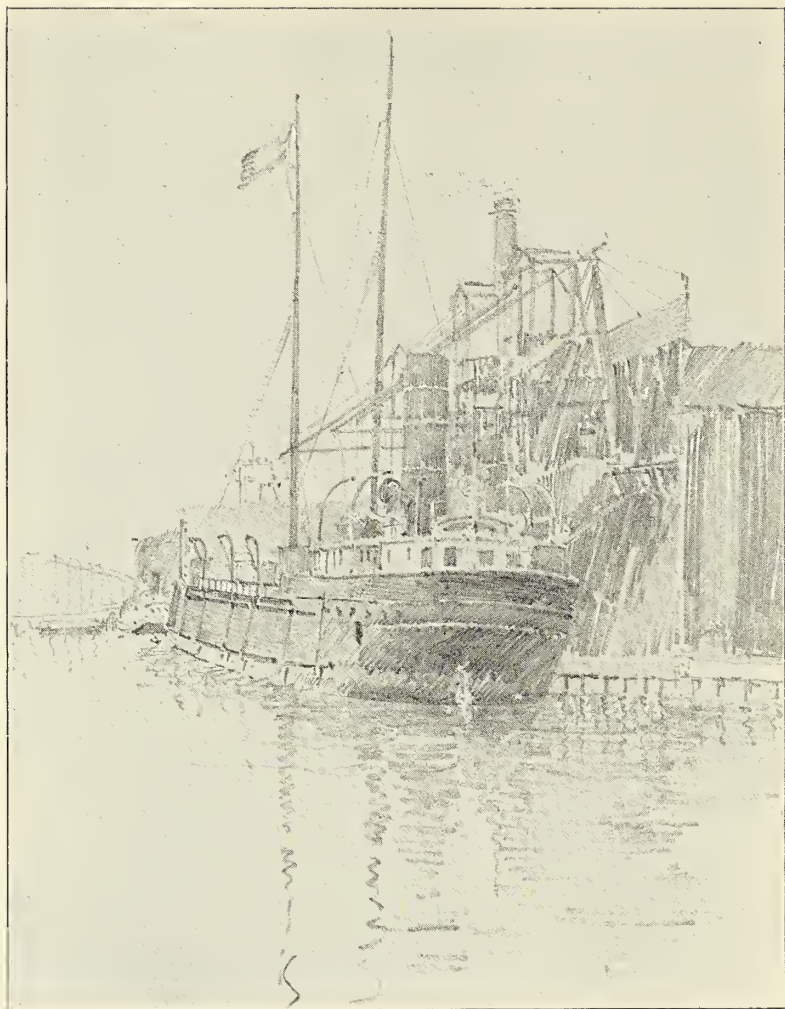
SECOND FLOOR.



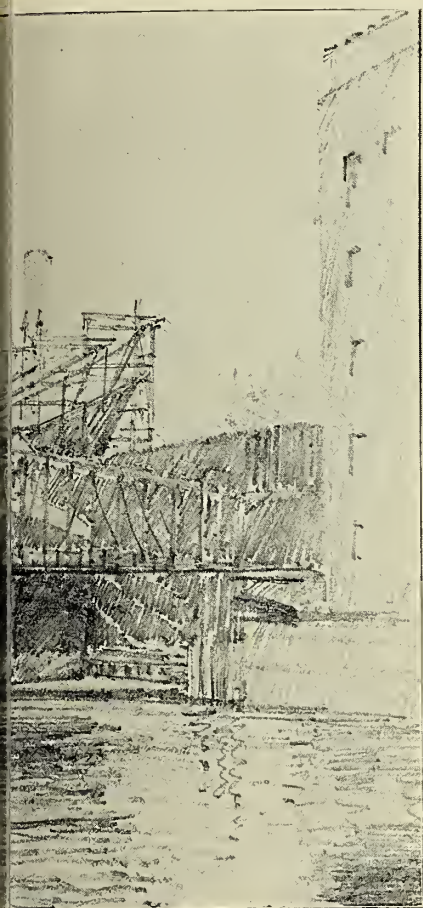
A VILLAGE HOSPITAL.

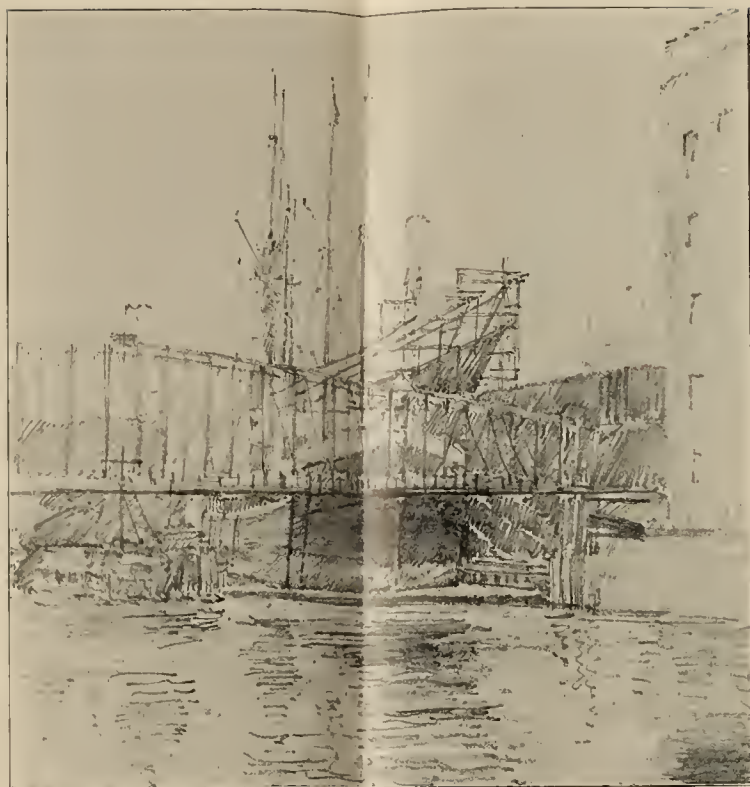
FOR GENEVA, N.Y. NOV. 1894.

ADDISON HUTTON ARCHITECTS
CHAS. L. HILLMAN
PHILADELPHIA, PENNA.



"PICTURESQUE CHICAGO." CHICAGO AND
FIRST PLACE





"PICTURESQUE CHICAGO." CHICAGO ARCHITECTURAL SKETCH CLUB COMPETITION.
FIRST PLACE: ELMER C. JENSEN.

THE INLAND ARCHITECT AND NEWS RECORD

Vol. XXIV.

JANUARY, 1895.

No. 6



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CONSTRUCTION, DECORATION AND FURNISHING
IN THE WEST.

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NOTE.—Officers elected enter upon their term of office January 1, and continue until December 31, unless reelected, except in the case of Directors for two and three years.

**The
Government
Architecture
Bill.**

The time has now come when the most earnest work on the part of the architectural profession is necessary in behalf of the government architecture bill, now before Congress. As will be seen by the circular issued by the Institute committee printed in this issue, the passage of the bill was assured during the last session of Congress, and now awaits a fitting opportunity to be presented and passed. It is probable that in the near future the Congressional Committee on Rules will give a day or more to consideration of the recommendations of the Committee on Buildings and Grounds, one of the most important of which is the McKaig bill. Architects throughout the country should at once give their support to the efforts of the Institute committee, and use every endeavor to call the attention of their congressmen to the McKaig bill and place the advantages of its enactment before them, so that when it comes up for passage every member will be well informed upon its provisions and scope. This can best be done by personal letters to these representatives from all friends of the bill. One of the strongest reasons a congressman can have for favoring the bill is the fact that after its passage any public building which he secures for his district will be designed and built immediately, while at the present time it must wait the slow development of the system in vogue. The artistic side of the argument for the inauguration of the system such as the bill outlines can have no better illustration than the Columbian Exposition, where the rapidity and economy in its construction should convince the most skeptical that the saving in time and money on government buildings designed and constructed under similar conditions will be phenomenal. Let every architect make it his chief interest until the passage of this bill to urge its passage and secure for it every influence available. It is exceedingly encouraging to note that the American Institute of Civics, of which Justice William Strong, of the United States Supreme Court, is president, is taking a lively interest in the subject, and the daily press throughout the country has at last recognized that the time has come when the government of the United States should be represented by a higher art and a greater economy in the construction and operation of its buildings.

**Institute
Directors
Meeting
at Chicago.**

The Board of Directors of the American Institute of Architects held its regular session in Chicago, on January 7 and 8. The Executive Committee elected for the year includes the president, secretary, treasurer, and W. S. Eames, of St. Louis; L. H. Sullivan, of Chicago; George B. Post, of New York, and Robert Hastings, of Washington. The new member of the Committee on Uniform Contract taking the place of W. W. Carlin, deceased, is George W. Rapp, of Cincinnati. The newly established standing committee on Education and Library consists of W. L. B. Jenney, of Chicago; R. W. Gibson, of New York; Theo. Carl Link, of St. Louis; Henry Van Brunt, of Kansas City, and Cass Gilbert, of St. Paul. The sessions, which were attended by fifteen members, occupied two days, and a large amount of detail work was accomplished.

MECHANICAL HEATING AND VENTILATION.

BY M. C. HUYETT.
SIXTH PAPER.
BOILERS.

IN churches, schools and other public buildings, *safety for occupants* should have first and constant consideration in the development of plan and application of the mechanisms required for heating and ventilating plants.

Owing to the limited height of basements, it is a difficult matter to install "water-tube" or "safety" boilers, and their high price increases first cost of plant to such an amount as to practically prohibit their use.

Horizontal tubular boilers, made of open-hearth, homogeneous steel plate of 60,000 pounds tensile strength and standard thicknesses, tested at 150 pounds hydrostatic pressure, will have a safety factor exceeding four hundred per cent; they should be proportioned for maximum requirements with not to exceed twenty-five pounds steam pressure, and have a lever safety valve set to blow off at fifty pounds pressure. *Pop valves may cause a panic.*

SPACE REQUIRED.

Horse-Power.	Size.	Floor Space.	Height of Brick and Front.	Top of Dome.
20	36" by 10'	14' 6" by 68"	92"	106"
25	42" by 10'	14' 8" by 74"	98"	111"
30	44" by 10'	15' by 76"	100"	117"
35	44" by 12'	17' by 76"	100"	117"
40	44" by 14'	19' by 76"	100"	117"
45	48" by 14'	19' 2" by 88"	103"	124"
50	54" by 12'	17' 6" by 94"	112"	138"
60	54" by 15'	20' 8" by 94"	112"	138"
70	60" by 14'	19' 10" by 108"	118"	146"
80	60" by 16'	22' by 108"	118"	146"
90	66" by 15'	21' 6" by 114"	124"	156"
100	66" by 16'	22' 2" by 114"	124"	156"

For double settings double the width will be safe for space required.

Half-iron fronts should not be tolerated for a first-class plant.

SUMMARY.

The advantages mechanical heating and ventilation possesses over other systems are :

First.—The quantity of air to be supplied for ventilation can be based on the number of occupants up to or above the highest sanitary standard, and be delivered regardless of the temperature of the radiating surface, internal or external air temperatures, varying atmospheric pressures, direction and velocity of external air-currents, height of ventilating shaft, and heat-force supplied to and maintained therein.

Second.—Temperature and volume of the air, together or separately, changeable at will. Experience has demonstrated the fact that when a room has been warmed sufficiently for occupancy with comfort and safety, if there be many persons the annual heat will so nearly maintain the required temperature that the steam pressure can be largely decreased, or fifty per cent or more of the radiating surface be "cut out," reducing the heat supply without decreasing the fresh-air supply.

Third.—Uniform low temperature of the radiating surface; the temperature of steam is,

At 5 pounds pressure.....	225° Fahr.
" 10 " "	237° "
" 15 " "	248° "
" 20 " "	257° "
" 25 " "	265° "
" 30 " "	273° "
" 35 " "	279° "
" 40 " "	285° "

But the temperature of the radiating surfaces with which the air to be warmed has contact will not record as high as stated.

Fourth.—No leaky valves, joints and radiators in rooms and corridors.

Fifth.—Quickness with which a building can be warmed. If steam has been used the day previous, a building can be warmed ready for occupancy in from one hour to an hour and a half from the time the fan is started; when exterior air is at or below zero, starting with water at normal temperature, steam can be made and a building be warmed in about three hours. Under like conditions the average direct-heating systems used in churches requires firing

all day Saturdays—and some at night also—and up to the hour for service on Sunday, in order to warm a building sufficiently.

Sixth.—Freedom from inflow of cold air, causing cold drafts, so common in all buildings with warming apparatus which depends on "natural means" to give diffusion and displacement.

Seventh.—The air supply can be conducted from the highest position practicable, insuring pure air, which need not be brought in contact with overheated radiating surfaces.

At what elevation the air of London is purest has been made the subject of scientific investigation by Priou, a chemical expert, the result in question being realized, it appears, at about thirty or forty feet from the ground; lower than that the dust is encountered, and higher, the smoke from the chimneys reaches. Certain experiments in determining this matter were resorted to—that is, frames of wood covered with blanketing material were placed at different elevations, one being put on the top of the clock tower of Westminster, another on the highest point of the roof, and others at various heights down to the courtyard. After five hours' exposure in these various localities there were found to be more smuts at high elevations than at the low, but on the level of the courtyard considerable quantities of dust were present. The conclusion arrived at is that, on the whole, the purest level is at the height of between thirty and forty feet, nothing being gained by going higher, unless it be to some four hundred or five hundred feet.

Eighth.—All parts of a building or rooms can be heated with like certainty; the full volume of ventilation and heat—force—can be delivered through the ordinary avenues for distribution, or the power can be cumulated at the points of maximum exposure.

Ninth.—Economy in the consumption of fuel; the average architect and heating engineer will probably "receive that statement with a degree of allowance."

In heating, the combustion of fuel is *cause*, and the warmed air in a building or in rooms is *EFFECT*, but a like cause does not always produce an equal effect.

Apparatus that will warm the air in an inclosed space in the shortest time, and supply the required volume of fresh air for ventilation at the least expense for fuel, will maintain the after required conditions at the lowest cost.

Where non-continuous heating and ventilation is required—as for churches, schools and other public buildings—the fuel expense will favor hot-blast, or mechanical heating and ventilation, at least twenty-five per cent.

Tenth.—Non-liability of freezing. The radiating surface is less than that required for direct heating, and is all cumulated in one place, with one or two short feed pipes which can be fully protected against loss of heat.

The circulation is short and quick, with automatic return of water—the result of condensation—to the boiler, making the conditions of quick drainage of the radiator, and no danger from low water in the boiler, certainties.

All-night firing to prevent pipes from freezing is not necessary. Apparatus which has been through five winters in Wisconsin, with temperature as low as forty-eight degrees below zero, has never had a frozen pipe.

With mechanical heating and ventilation, when a school session closes for the day, or in a church when an audience has been dismissed, the fire, if it has not expired, may be drawn, and the consumption of fuel ceases; the next morning the water in the boiler will not be cold, and one quick fire will ordinarily raise steam and heat the coils in the radiator in less than forty minutes, after which, in about sixty minutes, the building or rooms will be comfortably warmed; subsequently light firing will maintain the required temperature.

A report signed by an expert and a citizens' committee of six persons, who made a critical examination of all school buildings in Chicago, acting with the Board of Education, stated :

"The difference in economy between steam apparatus with and without fan, is demonstrated by the following comparison :

"The average cost per sitting of thirteen buildings without fans, built since 1879, is.....	\$3.14
"The average cost per sitting of all the buildings in which fans are used is.....	2.71

"The difference in favor of fans is.....\$0.43
"In these thirteen buildings there are 10,736 sittings, and the departure made in recent years from the fan system has cost

\$4,616.48 per annum." . . . "Had the fan system been adhered to, it is reasonable to assume that the saving in cost of heating and ventilation during twenty years, the estimated life of the apparatus in these thirteen buildings would have been \$92,329.60." . . . "It is evident that materials of an inferior quality have been used in the construction of some of the apparatus." . . . "The results of this inspection have fully demonstrated to the committee the importance of a careful preparation of the plans for heating and ventilating in connection with the architect's plans."

The committee estimated the life of steam apparatus at twenty years, and furnaces at ten years.

The "air space" per pupil ranged from a minimum of 165 to a maximum of 211 cubic feet per pupil.

The result of the examination and report is that since that date, every school building that has been erected has the fan system of heating and ventilation.

Hot-blast, or mechanical heating and ventilating apparatus, a complete whole, can be constructed and applied at less cost than any other system that will produce like results, and will maintain required conditions at less cost for fuel.

The foregoing statements are not theoretical; they are demonstrated facts.

(To be continued.)

ARCHITECTURE IN INDIA.*

BY N. N. WASLEKAR.

THE subject, "Architecture in India," I am requested to write and read before such a learned and appreciative body as the Illinois Chapter of Architects of Chicago tonight, is so vast and varied and totally exclusive in its nature that I really do not know, gentlemen, where to begin and where to end. I feel utterly diffident to do any justice to the task I have willingly undertaken, and I only hope that you will listen to me with indulgence.

The Indian styles of architecture are as varied and numerous in their details as are the different prominent peoples that had a sway over part or parts of that great continent of India, and even the few who have placed before the world the description of the varied architecture of that peculiar country had to invent names for the styles of architecture, and call it the Buddhist, the Jain, the Saracenic, the Mohammedan, the Pathan, the Hindoo Proper and the Mogul architecture, designating each by the name of the sects under whose sway the several buildings, grottoes, caves, monasteries, temples, etc., were being constructed and which stand prominently before the traveler at this day; but there is no material and prominent difference between some of them, and, strange to say, no records to tell us when each was built historically, and whatever dates recently fixed upon are by the several coins and inscriptions found and deciphered only within the last quarter of a century, and prove that the Buddhist and Jain structures were built about the same time, commencing a few centuries before our present era, and extending a thousand years from that date, and similarly as the Saracenic, Mohammedan and Pathan periods subsequently followed, and are nearly uniform in their styles. I shall broadly classify the whole of India's architecture in three subdivisions only, the Buddhist, the Mohammedan and the Hindoo, giving you, or rather attempting to place before you a description of the principal and world-wide known structures, one of each style—the Elephanta caves, near Bombay, of the Buddhist period; the Ellora Kailas Hindoo temple, constructed over a thousand years after that; and the world-renowned Taj Mahal of Agra, built still later on by the Emperor Shah Jehan of Delhi, of the Mohammedan period contemporaneous with the Elizabethan period—and touch some of the salient points of difference I may think of in connection with these.

But before I begin to describe each of these I must say something more of the historic period and begin from the very beginning. To the western, the Indian architecture is not only an architecture with which he does not care to be familiar, but it is not even congenial to his tastes. The reason may be because that architecture has exercised no direct influence on the later styles of Europe, but is peculiar to itself, being original; and strange to say that, although there have been so many influxes of different nations into India, the Indian has not adopted or even copied any of the western styles, but has simply held his own in its pure originality. Notwithstanding all this, the magnitude and importance of many Indian buildings, now measured, photographed and sent broadcast, show an exuberance of ornamental wealth and an inventive and artistic genius of no mean order. Although by far the larger number of these date subsequent to the Christian era, barring the Buddhist and Jain relics, they clearly manifest that wealthy cities and powerful peoples existed long prior to this era, and that some of the styles must have preceded the classic styles of architecture. In one solitary instance, a date 3101 B. C., corresponding with the Kaliyug of the Hindoo Aryans, has been discovered from the Sanskrit literature when the Aryans proper must have migrated into India through the valley of the Indus

and settled in Punjab and Northern India; and although no stone structures of that period exist, it may be argued that they never used stone but for the purposes of foundations, city walls, gates, bridges and embankments, and that all their buildings must have been built of wood, as is the case in Burmah and China this day, because wood can be easily carved and cut; it facilitates larger spaces being inclosed, and for the same outlay twice the space can be covered, color and gilding done better on wood; or, for some such causes stone was then not used, for had it been used, there would have been some traces left, and there are none to be found anywhere, nor coins or inscriptions of those remote ages discovered. The only clue left is to thrash the Sanskrit literature, a great mass of which still remains unexplored, if I may be allowed to use that term, and if this is done by the learned savants of Europe and Germany especially, and perhaps by the learned Pundits of India's soil, I have no doubt that something tangible on this point may be discovered.

Is it then worth while to go into India's architecture when it is so exclusive, tangled in such intricate meshes? I think it not only deserves a passing notice, but a careful study. Greece and Rome, gentlemen, are dead and gone. India is a living reality. Although there have been influxes, there have not been refluxes, as I said before. The result is that every art has its living representative, every science its illustration, and a majority of them not easily surpassed. The works of an immense portion of the human race who have shown themselves capable of artistic development must be studied; more so, when it is a living art and can only be seen in action in India.

It has been wonderfully developed since the twelfth or thirteenth centuries, during the Mohammedan period of India's history. It is not known, gentlemen, till this day what was the composition of the ingredients used in building structures to make them so lasting. I know in ordinary towns structures are standing this day, for centuries, they say, with cracks from top to bottom and don't give way. Stone not being used in remote ages, as I said, it is useless to look for any architectural remains till after the date of Gautam Buddha, 540 B. C., or rather of King Asoka, the disciple of Buddha, who reigned from 272 to 236 B. C. and who was the first to use stone in structures. Most remote of his relics now left are the *Lals*, or inscribed pillars, ornamented with bands and moldings crowned by a sort of capital. It has been surmised that these must have been approaches to Buddha's temples, now no longer found. Besides these there are *topes* which exist in numbers in India. These are either to note some notable occurrence or to mark sacred spots or to cover the relics of Buddha himself. *Topes* consist of a stilted hemispherical dome surmounting a circular structure, access to which is by steps with niches for the reception of sacred repositories. Central India is full of these, and the most famous of all is at Sanchi, about one hundred and twenty feet in diameter and sixty feet high. This was built by King Asoka. Of the various invasions which have overrun India, some have left traces in the architecture of India. Some semi-Greek forms are yet to be seen in the northern provinces, undoubtedly the remnants of the invasion of Alexander the Great.

Besides these there are caves, temples and monasteries hewn out of solid rock. The older monasteries cut in the rock are several stories in height, and it is probable that these cells must have been used by devout Buddhists for the purpose of meditation or habitation; but many of these, the Jain and the Brahminical temples, display rich ornamentation and very elaborate workmanship indeed. Intricate moldings and other fantastic embellishments abound in numbers. Columns of all shapes and sizes are found; brackets frequently used in lieu of capitals; and where capitals are used, almost every variety of fantastic form is noticeable. Some say no fixed laws exist and govern these relics, but original works of great antiquity do exist which show plans of buildings, their heights and details, and these could not have been merely thought of.

Buddhist structures are to be found in the north and west, while the contemporaneously built Jain structures abound in Central India on Mount Abo and on Mount Girnar in Kattiawar. Coins found near here of first and second centuries of this era prove this. Buddhists never employed a true arch. Hindoos and Jains use stone arches, but these are invariably horizontal arches. Hindoos quaintly say that an "arch never steeps" which is always trying to thrust its hanches outward, whereas the horizontal arch is in stable equilibrium; but sometimes they carry this dread too far, as in city walls, where there is a superabundant abutment at either end to counteract the thrust, and the horizontal arch is out of place here.

We now come to the second heading, the *Mohammedan architecture*. We all know something about the prophet Mohammed, born in 622 A. D. His caliphate since was recognized in Arabia, Syria, Palestine, Persia, and latterly in India, and Mohammedans having the whole of Upper India to themselves for over five hundred years, it was but natural that their rule should leave an impress on the architecture of India, and so Mohammedan style arose. This did not displace the previous indigenous art of each portion of that empire through which it made its headway, but the Mohammedan architecture at a glance shows itself everywhere, and as it has been in all the other countries, so it is in India. We see Hindoo and Jain temple and its architecture side by side with Mohammedan architecture. A mosque, or Mohammedan place of worship, appears in two forms. The earlier are all of them built in a style which is simplicity itself. Fancy a large, open courtyard with a fountain in its center, surrounded by arcades supporting

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timber roofs. On the side nearest Mecca, the arcades are increased to several rows in depth, so as to cover a considerable space. Here the devotees assemble, and here in a niche or recess, termed "Kibla," more or less ornamented, is kept the Koran, and hard by a pulpit is erected. A minaret or high tower in a conspicuous corner is built from which call to prayer is given, and is an indispensable adjunct to a mosque.

The second sort of mosque is a dome, somewhat of the pattern of a Byzantium domed church, with a central space, fountain, etc. The arches are all pointed. Gothic arch appears to have been discovered by the very earliest Mohammedan architects at a time when the style was in the zenith of its grandeur in India, and the beauty of the Mohammedan architecture is no doubt due to its adoption. Not the least notable features of mosques and tombs is the marble slab perforations of most exquisite patterns. The dome at Bijapur, a tomb larger than the Pantheon at Rome, is a tower which can vie in comparison with any similar structure of even Florence, and the most conspicuous of the monuments is the one at Agra, the Taj Mahal. These mosques are specially marked for the great skill displayed in roofing and lighting them. This is done by means of a series of domes raised on columns sufficiently above the general level of stone ceilings which cover the intervening space, to admit light under the line of the springing. The beauty of the marble tracery is very great. It is not of massive construction. Extreme lightness, great extent, skillful distribution and admirably combined groupings of features are among the main qualities of the Mohammedan architecture which give the whole structure a rare charm.

Having briefly touched the outline of the several phases of architecture as found in India, I now attempt to give you a detailed description of some of the principal structures mentioned above, and the description of the Kailas Hindoo temple will serve as an illustration of that style, and I shall now try to describe the Elephanta cave, which I must have visited times without number, being near my birthplace, Bombay, and which is the most ancient of all the Buddhist structures of India.

The Elephanta or Gharopuri cave, as we call it, is about six miles from Bombay, situated on the western hill of an island. It is 250 feet above the level of the sea. It is so called because elephants in stone were at the entrance of the harbor when lately the Portuguese occupied it. Daily excursions from Bombay at present leave for this resort. Mr. Prinsep and others fix the date of this relic at 200 B. C. from inscription found; but my friend, the late Dr. Rajendra Lal Mitra, LL.D., who was also honored with the title of Doctor of Philology by a German university, for his researches, etc., has fixed its date at 300 or 350 B. C., which has been since recognized. It seems others had overlooked the twelfth line of the inscription in the Pali language which read, "Nanda, King of Maghada," and it is known from Sanskrit literature that Maghada reigned later than 300 B. C. It is said by a Portuguese writer that a notable inscription was removed by them and is nowhere now to be found. This cave, therefore, is contemporaneous with the Buddhist period, and the celebrated Ellora cave resembles this in details.

The Elephanta cave is hewn out of a hard trap rock which has been cut away on either side, leaving open spaces at each end, and does not cover the whole area, one hundred and thirty feet square. The principal entrance faces north. Omitting these spaces and back aisle in front of the principal sculptured monuments described later on, the cave proper is ninety-one feet square. It is supported by six rows of columns, six in each row, except at the corners on the west side, to make room for a shrine which occupies a space equal to four of these columns. By actual measurement, it could be seen any day that scarcely two columns are exactly similar in sizes, and even in their principal details or heights, and very often not even square, nor three in a line. The angles at the corners are far from right angles, and the depth of the cave varies, or the floor is not parallel to the ceiling, and hence the height of the columns varies from fifteen to seventeen feet. The porticos have each two pillars and two pilasters. The columns are very massive and were originally twenty-six in number, but eight or so are now nearly broken. It is said that a Portuguese soldier cannonaded the interior to enjoy the sound of an echo! and hence the partial destruction. We notice now that the present government is taking stringent measures to keep what is left intact. The portico on the east side opens into a court, and with a flight of steps leads one to a smaller cave. At the other end of the great hall is also an open court, with a water cistern on south side. This water is very cooling and refreshing even now, and shows there is a spring hard by. At the other side is a small open chapel with a *linga* shrine at the back.

The most striking of the sculptures in this cave is the world-wide famous colossal three-faced bust of *Trimurti* or the Hindoo trinity of Brahma, Vishnu and Mahesha or Siva, at the back of the cave, facing the entrance. It rests in a recess ten to eleven feet deep, about double that in width, rising from a base three feet high. At the corner of the opening both in floor and lintel are holes to receive doorposts, and in the floor is also a groove, as if a screen was used in days gone by to keep back the crowd of devotees. The central face of this *Trimurti* has a mild and calm appearance of Brahma, the creator, the lower lip thick and the breast ornamented with large stones, in the center of which is a rich jewel carved. In the left hand he holds a *Kamandatu*, or a drinking vessel of an ascetic *Yogi*. The nose and right hand are mutilated. The *mugula*, or headdress, is fastened by folds covering the neck. The whole is beautifully carved and is the finest specimen ever to be found anywhere. To the right of this central

figure is that of Siva the Destroyer. The peculiar feature of this image is that he grasps in his hand a cobra twisted round his wrist, and the cobra with its hood expanded looks him in the face, while he in return looks at him with a grim smile. One can see his tongue in his slightly parted lips. The third face of the *Trimurti* is that of Vishnu, the Preserver, holding in his right hand one of his emblems, namely, a lotus flower. This is very tastefully sculptured. On each side of the above *Trimurti* stand gigantic *dwarvals* or doorkeepers, twelve to fifteen feet high, resting their hands on separate dwarf demons seven feet high, one in a noticeable crouching position. I told you at the outset that before we come to the rear, we pass over a shrine. Here are also to be seen *dwarvals* in a row, large or small, tall or short, round the four sides of the shrine. It is entered by doors from four sides and one gets into it by a flight of a few steps and is consequently three to four feet over the general level of the cave. It is dedicated to Siva, *linga* of hard black basalt being placed there on an altar three feet high. The inside is all plain and needs no mention. Then there are several compartments recessed all to the right and left of the *Trimurti*, in one of which is a gigantic figure of *ardha nari* or half man and half woman, resting on *nanda* or bull. Headdress is carved on one side and on the other her hair is shown falling on the brow. This is in good preservation. Then there are several gods—Vishnu, Garud, Indra or the Jupiter Pluvius of the Hindoos, with their respective peculiarities, are clearly discernable. In one of the compartments Siva and Parvati are carved—he sixteen to eighteen feet high and she about four feet shorter than him. From his crown or *keshakalp* rises the three-headed female figure representing either the three great rivers of India—the Ganges, the Jumna and the Sarswati—or, their names being the namesakes of the three wives of the three figures of the *Trimurti*, the figure may be said to represent them. She wears a circlet round the brow, from under which her hair is represented falling in curls and decked with ornaments with a sort of cushion behind the neck, perhaps of the back hair. Another compartment represents the marriage of Siva and Parvati, in which she is made to stand to his right, the only time when a Hindoo wife stands to the right of her consort, and the celestial attendants (*gandharvas*) and *apsaras* (or fairies), rejoicing over the event, are shown throwing flowers over the couple. These are very beautifully carved under the ceiling. Another place the ten-headed and twenty-handed Rawana or King of Ceylon is represented in all his grandeur, but the face and hands have been mutilated. Passing along you come across Kalpbrhati's image. The headdress is high, the face is full of rage, lips set, and eyes larger. He carries over his shoulders a rosary of human skulls and holds a naked sword in his hand, just in the act of killing his victim. Another place Mahadev is represented dancing his peculiar dance, the *landava*, all gods attending, and in the last compartment Siva is represented as a great ascetic or *Yogi* or Buddha-like. How Siva and his attributes came to be carved in these Buddhistic relics is a mystery not yet solved; perhaps the lost inscription would have told us; but we must not forget that Hindoo-Aryans lived during all these periods, aye, ages before these periods, and this fact may solve the riddle.

By a flight of steps we come to a courtyard opening to the north. To the south side is a temple raised on a basement and on each side of its entrance, on bases, stand tigers. I happened to have my photo taken here, which you can see. This temple has two porticos, chambers each side, a *dwarpal* in front and at the back a *linga*. Besides this great cave there are three other caves on the hill at no great distance and quite distinct from this. They are now in a dilapidated condition, filled with débris, and need no special mention.

(To be continued.)

APARTMENT HOUSES.

IN an article upon the subject of apartment houses, Architect J. K. Cady, of Chicago, in the *Economist*, makes pertinent remarks regarding the too prevailing carelessness and incompetency of architects in the planning of flats. After pointing to the impossibility of securing tenants for the old badly planned office buildings because of the improvements in the new, he predicts the same fate for the badly-planned flat building and says:

"As in an ordinary dwelling we find the parlors, library, dining room and kitchen in the lower story, while the bedrooms and bathroom are in another group above, isolated so as to secure the utmost privacy and quiet, so we should naturally expect that apartment houses would be arranged so that the public rooms of each flat would be kept near its entrance, while the private rooms would be another group disposed so as to permit passage from one to another with at least as much privacy as in the dwelling. It will be readily seen that such an arrangement secures greater quiet for the bedrooms than is possible in the second story of the ordinary dwelling, because in the apartment house bedrooms are over bedrooms, while in the dwelling house they are over public rooms, and the disturbing sounds of musical instruments and of voices are heard through the floors and open stair halls.

"Now what do we find in the prevailing types of Chicago flats? Complete and flagrant disregard and violation of every canon of house planning meet us at the door. Bedrooms are sandwiched between public rooms and cut off from the bathroom in such a manner as to make it impossible to pass from one to the other except in full view of the parlors, front hall or both, and so depriving the occupants of these chambers of the quiet and

privacy which are their right; bathrooms open from the front hall, oftentimes directly opposite the entrance from the public halls, and cunningly planned so as to advise all visitors whenever the bathroom is occupied, and, in many cases, a very slight knowledge of plumbing acoustics is required to enable the visitor to accurately determine which piece of plumbing is in use. In some cases a complete isolation of the bathroom has been accomplished by returning to the "privy in the backyard" idea, and the unfortunate tenants—and their guests—pass from their bedroom through the dining room or the kitchen, or both, in order to reach this room, which should be easily accessible with the utmost privacy.

"Kitchens are planned to open directly into dining rooms, and doors are placed so that full and complete views of the culinary department, together with accompanying sounds and odors, are forced upon the visitor at the entrance door and at the table.

"It is not difficult to see that such arrangements diminish the attractiveness of apartment houses, and that the better tenants, those who have regard for the ordinary decencies of life, will eventually be driven into better planned dwellings, and that means empty apartments of the type now prevailing.

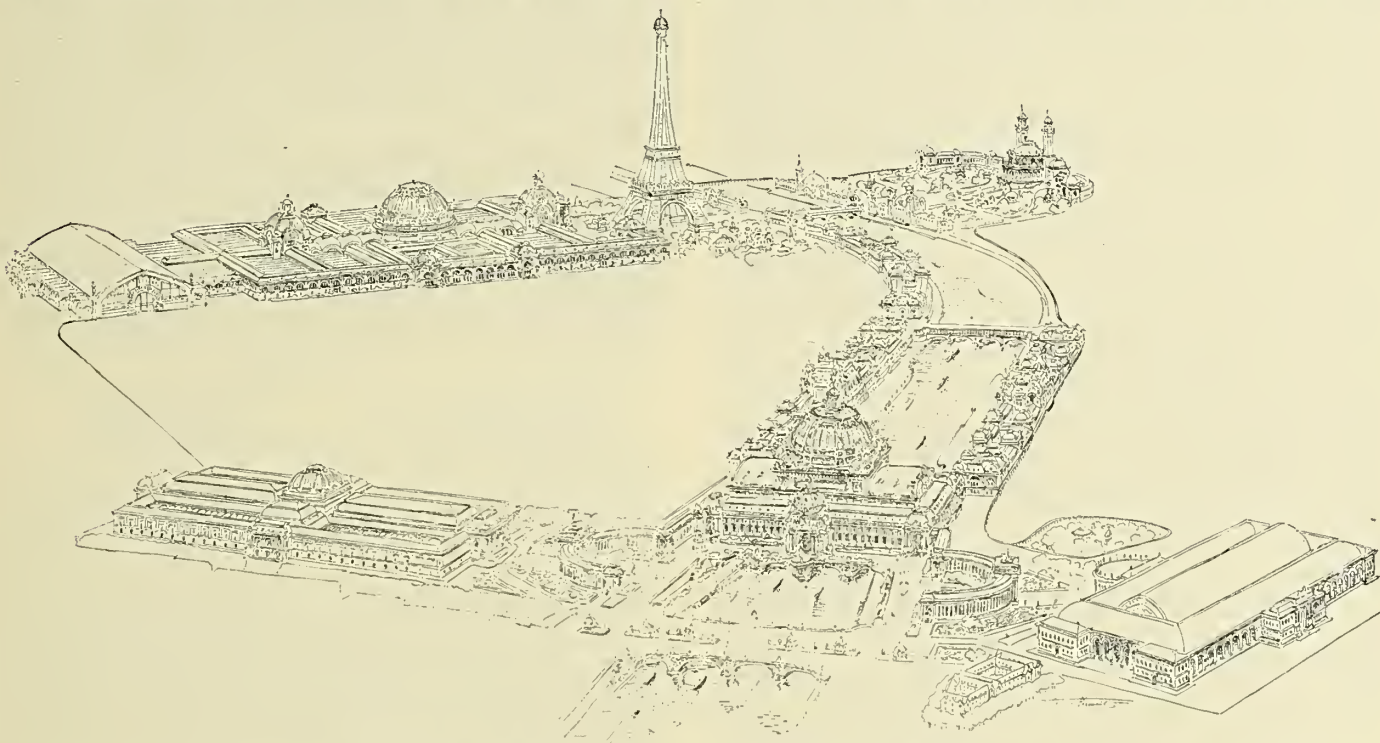
"Tenants have been tempted into flats by the glitter of bronze, the polish of marble and of hardwoods, a show of grille work or

river is to be by bridges, especially one great one opposite Les Invalides.

In their designs the competitors were to indicate the uses to which the different localities would be put, and especially note the main buildings and other principal edifices, among them the following: A great Festival Hall (*Salle des Fêtes*); a hall for World's Congresses; an Administration building; the connection between the opposite banks of the river; parks, gardens, fountains and other decorative features; means of transportation for visitors. The entrances are to be especially studied and arranged for the circulation of large crowds, both outside and within the grounds, and large space reserved for carriage stands. All the dispositions to be made in such manner as not to interfere with the general use of the public thoroughfares in the vicinity, and to always allow the free circulation on the public streets now passing through the grounds.

Also the competitors were to reserve large spaces for the buildings of foreign countries, locate power-houses, etc., for electricity, and to arrange for theaters, restaurants, etc. They were given complete liberty to retain or to remove any of the buildings now within these grounds, excepting only the Trocadero, and certain fine plantations of old trees.

In all the studies, designers must keep in mind the classifica-



BIRD'S-EYE VIEW OF THE DESIGN SUBMITTED BY MR. HERMANT.

In this plan, which is among the best submitted, the author retains the Machinery Building, the Eiffel Tower, and the Palais de l'Industrie, making the river Seine the great artery of the exposition. He places the main entrance at the extremity of an extraordinarily large bridge. In front of this double entrance is erected a great palace, directly over the river, the "*Salle des Fêtes*," and the vestibule of the exposition. Beneath it is a great illuminated grotto, as a landing place for steamers, gondolas, etc. The Fine Arts Building is to be an immense affair at the left, filling the esplanade of Les Invalides.

parquetry, sideboards, cabinets, mirrors and beveled glass, but all of these things will fail if the essentials of the home are lacking.

"Convenience of arrangement, privacy, light, etc., are the essentials in flats as in the ordinary dwellings, and no investor can afford to disregard them."

Although Mr. Cady overlooks the principal defect in flat construction—the drumhead-audiphone combination in the construction of the floors, his remarks are most pertinent.

THE EXPOSITION OF 1900 AT PARIS.

THE great preliminary competition for the lay-out of the exposition of 1900 at Paris has just been closed, and, according to the reports in the Parisian papers, it has been one of the most remarkable that has ever taken place either in France or the whole world. Twenty-three of the great rooms at the Palais de l'Industrie were completely filled, representing the work of over one hundred distinguished architects. In accordance with the French custom the exhibit was thrown open to the public previous to the deliberations of the jury, and the architectural papers are filled with descriptions and sketches—this description and sketch being reproduced from *L'Architecture*:

The jury met for the first time December 17, and, after formal organization, was addressed by the Minister of Commerce. In the course of his remarks he said: This competition was laid out upon quite strict general lines, yet, nevertheless, left as large a field as possible for the imagination and invention of the artists. The space to be devoted to the exposition includes the Champs de Mars, the Trocadero and its grounds, the esplanade of the Invalides, the Palais de l'Industrie, together with strips of land joining all these different localities, stretching along on both sides of the Seine. The necessary connection between the two banks of the

river and necessary proximity of materials and processes of manufacture.

While given complete liberty as to the choice of building material, the authors were required to consider everything as entirely temporary, and to produce the most effect in the most economical manner.

Four months were given for the preparation of designs. The jury is composed of thirty-one persons, ten of them being elected by the competitors. The following prizes were offered: Three prizes of \$1,200, four prizes of \$800, five prizes of \$400 and six of \$200.

More than six hundred competitors entered their names for this competition, but actually only 107 sent in drawings.

In conclusion, he said, "It is not necessary for me to remind you that in accordance with custom, each of us will refuse to take part in the discussions and voting upon the designs of anyone related to ourselves; and in closing my remarks, permit me to thank you, gentlemen, for the work you are about to undertake, and upon which to so great an extent must depend the success of the exposition of 1900."

THE University of Illinois asks for competitive designs for an association building for the Young Men's Christian Association and the Young Women's Christian Association at Urbana, Illinois, the competitors to be architects, graduates or students of the University of Illinois. The cost of the building is limited to \$30,000, and prizes will be given of \$200, \$100 and \$50, the competition to close on February 19. The architect obtaining the first prize, if competent, will be assigned the work at 2½ per cent, the prize money being considered as a first payment for his services as architect. S. W. Parr is chairman, and N. W. Marsh, secretary of the building committee, from whom particulars can be obtained.

THE GOVERNMENT ARCHITECTURE BILL.

THE following circular letter, which architects are requested to keep on their desks, to make constant and repeated efforts, and not to lay the matter aside until the bill is passed, has been issued by the committee of the American Institute of Architects for the information of the profession and public, regarding the status and purposes of the McKaig bill now before the United States Congress:

We inclose herewith a copy of the bill relating to the reorganization of the government architect's office, which was introduced into the House of Representatives by Mr. McKaig, and into the Senate by Senator Brice under the following circumstances:

This bill originated with a few architects in New York city, who happened to learn that notwithstanding the controversy between Secretary Carlisle and the American Institute of Architects, the Treasury Department was anxious to reorganize the Supervising Architect's office, and to have a bill introduced to this effect, because of the many objectionable and illegal features of previous bills—notably the "Tarsney Bill"—which made them undesirable as well as inoperative.

The "McKaig Bill," which was drafted by Mr. George B. Post, of New York, in consultation with these New York architects and with the Treasury Department, embodies an entirely new idea which is based on the very satisfactory lines under which a number of government departments—notably the Lighthouse Department—have been conducted most successfully for a number of years; by placing the initiative and professional work under the management of an expert board, of the highest standing, under whose direction the work would be distributed for the best advantage of the country, of the work, and of the profession; leaving the administrative work in the hands of the government, where it belongs.

The bill as originally drafted was revised a number of times by the committee of architects on the one hand, and by the Treasury Department on the other, and as introduced was entirely satisfactory to all parties concerned. Though many of the minor details may not apply to individual cases in individual sections of the country, they had to be adjusted so as to cover the entire territory, and also so as to meet administrative, legal and other objections not generally appreciated by the profession at large. The powers of the commission are such as to enable them to modify these details from time to time, as they find it necessary and wise. The principle of the bill, namely, of instituting a commission of high character to have charge of the architectural work of the government, and to distribute the work among the most skillful architects of the country, is unquestionably a correct one.

The bill has received the approval of the Secretary of the Treasury. It has passed the Committee on Public Buildings and Grounds, of the House, whose indorsement could not be stronger, and the bill is now regularly before the House. Owing to its introduction at the end of the last session of Congress, at a time when the House was entirely absorbed by the tariff revision, it was impossible to have a day set for its consideration and passage; therefore it had to go over to the present session of Congress.

In the House Committee's report to the House, recommending the passage of the bill, they state, among other things:

"Your committee do not believe that the beneficial results that should be obtained are obtained under the existing methods of planning and constructing public buildings of the United States."

"While the employment of the best artistic thought, and best and most approved systems of construction and equipment ought to be represented in the public edifices of this great nation, the contrary of these propositions is the result obtained under existing methods."

"Your committee are advised that the best and highest types of artistic thought and architectural skill in European countries is found in the government buildings of those countries, while in this country the reverse is the rule, and superiority of architectural design is represented in state, municipal and private buildings, and not those erected by the general government."

"A comparison of modern buildings erected by private citizens and corporations with those belonging to the government of the United States will show, as to the former, constant progress in construction and artistic expression, and continual increase in economy of construction, while in the case of the buildings of the United States there has been but little, if any, advancement. The buildings constructed recently by the United States, as compared with those constructed a quarter of a century ago, show a marked deterioration of artistic quality. The cost has been, relatively and positively, much greater than those of private buildings of the best type."

"Your committee has been furnished reliable and trustworthy information and data, showing the cost of the best type of buildings constructed for states, municipalities, corporations and private citizens range from 38 to 50 cents per cubic foot of space, while the cost of buildings constructed by the United States ranges from 50 cents to \$1 per cubic foot."

"The conditions and results which your committee thus call to your attention, necessarily follow the methods and practices now employed by the government."

"It now transpires that the time of the Supervising Architect is wholly employed in matters of administrative detail, and the architectural work of the office, the plans, designs and specifications, are prepared by mere copyists—cheap clerks."

"After entering elaborately into the present duties of the Supervising Architect, and showing the physical impossibility for one man to find any time for designing, the report continues:

"The Supervising Architect rarely sees one of these buildings while in course of construction. Its construction is generally under the supervision of some local carpenter or builder, who never made any pretense to architectural knowledge or study; whose appointment was secured not because of his skill but because of the political influence he could marshal, and whose greatest solicitude is to prolong the tenure of his employment by delaying the completion of the work."

"A building which, if the property of a private citizen, would be constructed in months, when erected by the government requires years for its completion. A public building at Detroit, Michigan, where the construction was authorized eleven years ago, and \$1,300,000 appropriated by Congress years since, the foundation walls are not yet completed."

"Indeed, the abuses in the method above referred to, have become so serious that the committee cannot conscientiously recommend public buildings at many places where the economical and convenient transaction of the business would require to justify such buildings could they be provided at a cost not greatly exceeding the necessary expenditure by a private owner for similar purposes."

"Of the bills reported from this committee during the present session, many are so reported only under the assumption that the buildings contemplated can be erected under some plan less wasteful than now in operation."

"The scope and purpose of the measure herewith presented is designed to remedy the many evils herein pointed out; to give to the country a better type of architecture in its buildings, and to stop the wasteful extravagance which is the necessary result of the present methods."

"The measure does not abrogate or take from the Supervising Architect any of the functions or authority belonging to the office, which, under existing conditions, he is capable of performing. He will remain and continue the representative of the government, and perform all the duties that now pertain to his office, excepting the designing and preparation of drawings and specifications for such buildings, and the local supervision shall be subject to his approval."

"In fact, this measure is intended to make him what the title of his office indicates, the supervisor of architects: not the government's architect, but the supervisor of the architects of the government's works. Therefore your committee recommend the passage of the bill."

The bill was introduced in the Senate and referred to the Committee on Public Buildings and Grounds too late for its consideration, and has not yet been reported upon by this committee.

To summarize: *In the House*, the bill is regularly before the House, and as soon as a day can be set for the discussion of the same, it can be passed. *In the Senate*, the bill is before the committee, and as soon as it can be reported to the Senate and a day set for its discussion, it can be passed.

The bill has received the approval of the Committee of the House, of the Secretary of the Treasury, of the press and of the profession. It has been before the profession for nearly a year. Numerous meetings of different professional societies, and notably of the American Institute of Architects, have taken place in the meanwhile, and its indorsement has been unanimous. Many senators and congressmen have been seen individually, and without exception have commended the bill, and promised their support, many of them in writing. Up to the present date there has not been a single objection raised to the bill, by the public, by the government, by the representatives of the government in the Senate or House, or by the profession; on the contrary, it has received the most positive and hearty indorsement.

The bill should pass both houses with little or no trouble, because:

- 1.—It is purely administrative in its character.
- 2.—Its object is to correct an inefficient system which was instituted years ago, and which has become not only obsolete, but positively pernicious.
- 3.—It does not interfere with the present system, in so far as that system is efficient, but tends to relieve the present system of a burden to which it is not equal, and to enact proper measures to provide for this part of the work.
- 4.—It asks for no appropriations or expenditure of money, but aims, on the contrary, to effect economy in the expenditure of the moneys, and to raise the character of the work to the highest standard of the present age.
- 5.—In raising the standard of the work, it will raise the standard of the art, create new incentive, bring forth new men, new opportunities, and result in covering this country with monuments which will eventually compare with those of other countries, and in time perhaps excel them.
- 6.—It has received the hearty approval of everybody concerned or interested, on whichever side of the question they may be.
- 7.—It will not legislate out of office any of the present officeholders—many of whom have served the government faithfully for many years—because the work now in hand under the present system, and the maintenance of the buildings now completed, will demand the services of this force for many years to come, and it only applies to future work.
- 8.—It will relieve the Secretary of the Treasury of all work of an expert character, for which he must necessarily depend upon outside advice; by placing at his disposal, in this connection, an expert board of the highest standing.
- 9.—Not only will the buildings be equal to the best types that are erected in the United States, both artistically and constructively, but they will be built, as stated by the Committee of the House, at a saving of at least thirty per cent on the actual cost of construction, at least three years in the time of construction, saving not only the interest on the cost of the land and the cost of construction, besides salaries of superintendents, watchmen, etc., during this period—the cost of repairs and maintenance due to suspension of the work, but also three years' rent for temporary quarters pending completion of buildings.
- 10.—It can be demonstrated by figures, that under the new bill, with better buildings, erected in a much shorter time, in the cost of the construction of the buildings, the commissions of the architects, and the necessary appropriation for the Supervising Architect's office, the United States government would save at least \$1,000,000 per annum, as compared with the present system.

Yours truly,

December 11, 1894.

By order of the Legislative Committee on Government Architecture.

Permanent Committee:

BRUCE PRICE, Chairman,
ED H. KENDALL,
JOHN M. CARRERE, Secretary.

Advisory Committee:

R. M. HUNT, Chairman,
CHARLES F. MCKIM,
GEORGE B. POST.

The bill, which has already been twice printed in this journal, is again presented in order that its provisions may be studied carefully and its advantages urged by architects upon all legislators accessible.

A BILL, to provide for the securing of plans and for the erection of the public buildings of the United States.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President, by and with the advice and consent of the Senate, shall appoint a commission on public architecture, consisting of three architects of high scientific and artistic attainment and large practical experience, and two officers of the Engineer Corps of the United States Army. If necessary, a separate appointment of any or all of three members of the commission who are architects may be made for each building under consideration, and members of the commission for one building may act upon other buildings. That the commission, under the general direction of the Secretary of the Treasury, shall discharge all the administrative duties relating to the procuring of designs and the appointing of architects for all buildings hereafter erected by the Government of the United States.

SEC. 2. That the Secretary of the Treasury shall be the president of the commission ex officio, and the Supervising Architect of the Treasury Department shall be a member of the commission ex officio. In the absence of the president of the commission, one of the members shall be elected as chairman by ballot, and he shall preside at the meetings and perform such other duties as the rules of the commission may prescribe; and the Supervising Architect of the Treasury shall act as secretary of the commission.

SEC. 3. That the Secretary of the Treasury shall convene the commission whenever in his judgment the exigencies of the service require it.

SEC. 4. That the commission shall adopt rules and regulations governing competition in the procuring of designs, and for the government of its meetings and the general performance of its duties. The members of the commission shall be paid their actual expenses and subsistence and a per diem allowance of ten dollars while actually engaged in the performance of their official duties, but no per diem allowance or salary shall be allowed to any civil or military officer on account of his being employed on the commission, but his actual traveling expenses and subsistence shall be paid while engaged thereon.

SEC. 5. That in case the limit of cost provided by law is one hundred thousand dollars or over, the commission shall select by ballot, for each building, five architects to prepare designs in competition; in case the limit of cost is less than one hundred thousand dollars, the commission may, in its discretion, select by ballot an architect without competition. No architect shall be eligible for entering as a competitor, or for appointment, who has not had at least ten years' experience as an architect-in-chief, and unless he can satisfy the commission, through work already done by him, or otherwise, that he is competent to take charge of the economical construction of the building. The

*(NOTE.—Copies of the circular, for distribution, can be had on application to Mr. John M. Carrere, 44 Broadway, New York.)

COMMITTEE ON PUBLIC BUILDINGS AND GROUNDS.—*Of the House*: John H. Bankhead, Alabama, chairman; Joseph Abbott, Texas; Wm. M. McKaig, Maryland; Timothy J. Cambell, New York; John L. Bretz, Indiana; Cornelius A. Cadmus, New Jersey; Benjamin F. Grady, North Carolina; Albert S. Berry, Kentucky; Robert C. Davey, Louisiana; Seth L. Milliken, Maine; William Sumit, Idaho; Elijah A. Morse, Massachusetts; Myron B. Wright, Pennsylvania; John M. Wever, New York; David H. Mercer, Nebraska. *Of the Senate*: George G. Vest, Mississippi, chairman; John W. Daniel, Virginia; Samuel Pasco, Florida; Calvin S. Brice, Ohio; John B. Gordon, Alabama; Justin S. Morrill, Vermont; Matthew S. Quay, Pennsylvania; Walter C. Squire, Washington; Joseph M. Carey, Wyoming.

"McKaig Bill" is known as H. R. 7470. Fifty-third Congress, First Session. Report is known as Fifty-third Congress, Second Session. House of Representatives, Report No. 1370.

The rules of the House and Senate permit that the bill should be made the subject of a special order, having a special day set for its consideration and passage.

Copies of bill and report can be obtained by addressing the clerk of the House.

commission shall cause to be made and issued to competing architects surveys, schedules of requirements for the building, limitations of cost, and all facts which might control or influence the character of the required design. The commission shall specify the number and character of the drawings required, and fix a definite time for their completion. The Secretary of the Treasury, upon the recommendation of the commission, shall pay to each unsuccessful competitor, to reimburse him for expenses incurred in preparing the competitive drawings, the following amounts: For designs for buildings to cost not more than one hundred and fifty thousand dollars, the sum of one hundred and fifty dollars, and for each and every one hundred thousand dollars of the limit of cost of the building above that amount, the additional sum of one hundred dollars; but in no case shall more than one thousand dollars be paid to any unsuccessful competitor.

SEC. 6. That the commission shall reject and return to the author any drawings which have failed to exactly comply with the requirements and regulations adopted by the commission for the competition, and no compensation for their preparation shall be paid, and the author thereof shall be debarred from all further participation in the competition. The commission shall carefully examine the drawings of each competitor in competition and shall select one design as the design of the proposed building, and shall recommend its author as the architect for that building and return forthwith all other drawings to their authors. The Secretary of the Treasury shall thereupon appoint the architect so recommended and he shall perform all the customary duties performed by an architect in private practice, namely: The making of all preliminary sketches, the modification of his designs to meet possible requirements of the commission, the preparation of a set of general working drawings to procure estimates; the preparation of a set of general details on a larger scale, a set of full-size drawings for molded, carved or ornamental work, and a set of all other original drawings and specifications required by the commission. He shall supervise the construction of the building, and no payment shall be made to any contractor until the certificate of the architect has been received by the Secretary of the Treasury that the work has been executed in conformity with the contract. He shall file a complete set of the construction drawings in the Treasury Department, from which all duplicates shall be made, which duplicates shall be paid for out of the appropriation for the building. The architect shall be paid for his services a fee of five per centum upon the total cost of the work and the usual traveling expenses. The expenses of the commission and the fees of the architect shall be paid by the Secretary of the Treasury out of the appropriation for the building in the erection of which they were incurred.

SEC. 7. That the Secretary of the Treasury, upon the recommendation of the commission, shall authorize the architect to employ a competent clerk of the works, at a salary to be established by the commission, and he shall be paid for his services out of the appropriation for the building.

SEC. 8. That the supervising architect of the Treasury Department, under the direction of the Secretary of the Treasury, shall be the representative of the government in all matters connected with the erection and completion of public buildings and the payment therefor. He shall receive proposals for the work and, with the approval of the architect of the building, he shall award the contracts therefor. He shall perform all other duties that now pertain to his office except such duties as are vested by this Act in the architect of the building.

SEC. 9. That all Acts and parts of Acts inconsistent with this Act are hereby repealed.

NOTES FROM OUR FRENCH EXCHANGES.*

THE PALAIS DE JUSTICE AT BRUSSELS.

ALTHOUGH the very remarkable Palais de Justice at Brussels has now been dedicated for over ten years, and the architect is dead, yet the tide of criticism, both artistic and constructional, seems to continue, and latterly the engineer, who had charge of the engineering portion of the building under the architect, read a paper upon the subject. It appears that the total cost of the building and land was nearly \$10,000,000, and that work was in progress during sixteen years, while nearly four years previous was spent on the plans. It contains twenty-four large courtrooms or halls, and 236 smaller ones, together with a great number of offices for persons connected with the various services of the building. The architect was obliged not only to seek to carry out probably the most extensive and complicated series of requirements ever imposed upon an artist, but had also to, of course, carefully consider the effect and great prominence of a building which would be so noticeable in the general panorama of the city from any point.

It was particularly from the last consideration that the architect decided to adopt what he calls the Greco-Roman style, as permitting him to strongly accentuate the principal features that he intended to make prominent on the exterior.

Like all great public buildings, this one cost much more than the first estimate. However, neither the province of Brabant nor the municipality of Brussels hesitated about carrying out the scheme as originally designed.

Some of the most severe criticisms are more matters of sentiment than anything else, one party complaining "that the absence of the cross, marking the desire to do away with the divine blessing, would bring neither protection nor success to the new building."

At first it was only intended to use one kind of stone; but for political reasons it was later deemed necessary to use others if it could safely be done, and very long and exhaustive experiments were undertaken to determine these points.

The dome and the great central portico were the two features that required most particular attention from an engineering point of view, and from the fact that many of these problems were worked in an entirely new way arose great criticism. Especially the frequent use of iron and great girders in connection with the stonework was an innovation in architectural construction not easily accepted by the conservative element of the profession, which would have willingly used either one separately.

However, the important problems appear to have been worked out in most satisfactory and often very ingenious ways, and the success of them can scarcely be doubted when the cupola, which weighs over 25,000 tons, is so carried that "all the parts are perfectly bound and tied together, and to this day there has not been the sign of the least movement." The author continues: "I do not conclude from this that the building is indestructible; we can, of course, foresee that, like all other monuments, it will eventually succumb to the effects of time, but I am certain that never will there

be ruins of any monument that will be more remarkable and grand than this, with its massive stone and its immense iron arches in the shape of girders, some of which are over six feet in height."

As a matter of comparison the cost of buildings per square meter is as follows: Palais de Justice, 1,500 francs; Grand Opera House, Paris, 3,600 francs; Pantheon, Paris, 3,000 francs.—*L'Emulation.*

THE IMPRINT OF A HUMAN FORM IN ALSACE.

An important archaeological discovery has, according to *L'Emulation*, recently been made at Schlestadt, in Alsace. The church of Sainte Foy at that place is a building of quite pure Romanesque, which owes its origin to the Countess Hildegard, great-grandmother of Frederick Barbarossa.

This pious dame built, about 1087, for a tomb, a crypt which was the exact reproduction as to all dimensions of the Holy Sepulcher at Jerusalem. For a time this tomb became a much frequented spot for pilgrimages, but gradually fell into disuse, and finally the entrance was walled up and its very existence would probably have remained entirely unknown but for a very ancient manuscript by Beatus Rhenanus, which makes mention of it.

A few years ago the restoration of this old church was decided upon, and very recently, while repairing the stone floor, the workmen came across a large opening leading down to two subterranean chambers. Continuing the excavations the architect discovered three vacant tombs, as well as a fourth one of large dimensions, the latter of which had been closed up with masonry.

In this fourth tomb was found a quantity of debris of all sorts, and among it a large block of mortar especially attracted the attention of the architect, who believed he there recognized the imprint of a human form. A plaster cast was taken, and a mold obtained of the bust of a dead or sleeping woman. The face was calm and sweet, with a touch of melancholy, while the features exhibited culture and nobility. Who was this dead woman of high degree? has been the interesting question discussed by archaeologists. Some thought it was Hildegard herself, but the youthful features were scarcely in accord with her known age, and it now seems to be generally admitted to be rather her daughter, the "beloved Adelaide," as she was called in the original charter of the basilica, while the probable circumstances leading to this burial are believed to be as follows: At the end of the eleventh century an epidemic of the black plague ravaged Alsace, and history recounts the death of Hildegard herself, as well as her son Conrad and her daughter Adelaide, victims of this dread malady. The survivors, panic stricken, hastened to bury her, as a victim of the pest, in lime mortar, and as a result we have the extraordinary block of cement and the human imprint. That in most parts, the impression is perfect even to microscopic details seems to be due to the fact that the lime in the mortar filtered through the sand and covered the body with a lime coating, which quickly hardened, forming an envelope which modeled each feature exactly, even in minutest details. The entire mass of coarse sand and lime on the outside then gradually setting and hardening, formed one single, solid block, within which, when the body fell to decay, the mold remained and safely guarded for centuries the form of the body which it had originally covered.

The burial appears to have been very hasty, since the position was evidently not carefully considered, and in parts the weight of the mortar had caused portions to be flattened out of shape. The hair was braided, a beautiful cast of which was preserved. The chest was covered with a knit woollen garment, the exact stitches of which are plainly visible.

Unfortunately, the lower portion of the body is lacking, having been broken by the pickax of the discoverers.

CHICAGO ARCHITECTURAL SKETCH CLUB.

THE first meeting of the eleventh year of the Chicago Architectural Sketch Club, which occurred on January 7, was an auspicious event and one of the most distinguished in its history both in the number of attendance and the prominence of the visitors. The occasion was the sixth annual exhibition of the designs submitted in the Clark medal competition, the result of which was mentioned last month. The designs, sixty-four in number, were hung in the club assembly rooms and an artistically printed catalogue gave the names of the competitors.

The evening was occupied by the reading by Mr. D. H. Burnham of a paper upon "The Organization, Design and Construction of the Columbian Exposition." There were present, besides almost the full membership of the club and many visiting draftsmen, distinguished architects, members of the directory of the American Institute of Architects, which was in session in Chicago, as well as its president, secretary and treasurer. It was probably the first time that a sketch club of draftsmen ever entertained so distinguished a body of architects, and the fact was appreciated by the club members. Mr. Burnham's paper was a remarkable condensation of facts and was illustrated by the large number of original plats, drawings, etc., which were used in the frequent consultations of the architectural commission. These with the bits of inside history connected with those conferences made the paper of exceeding interest to Mr. Burnham's auditors. It is, probably, also the most accurate condensation of the history of the Fair that could be written. After a hearty vote of thanks to Mr. Burnham by the club, Mr. S. A. Treat, on behalf of the Illinois Chapter A. I. A.,

*Translated and arranged for THE INLAND ARCHITECT by W. A. Otis.

presented the gold medal offered by the Chapter to the club members for the best architectural drawing by a member of the club. This was won last year by Hugh M. G. Garden. In his absence the medal was received by Mr. Dillon, secretary of the club.

President Dean announced that the syllabus was not quite ready for distribution, but that a very attractive programme had been arranged for the year's work. There will be meetings at the clubhouse every Monday evening, the alternate evening being devoted to social enjoyment, the bohemian character of which will offset the intellectual programme of the regular fortnightly meeting. Considering the large number of draftsmen who have been out of employment and the heavy expense of maintaining a clubhouse, the club is in a remarkably flourishing condition, which, with the interest taken in it by draftsmen generally, is the best possible indorsement of the conservative management of its officers. This so impressed a number of the visiting architects, that several requested to be placed upon the associate list of the club, among them being the treasurer of the Institute. In the near future a scheme for reorganization will be developed by which the club will enlarge its membership into the general character of an art society, while still retaining as its main feature that of an architectural sketch club.

WHY HE WENT.

HE was a medium sized man, with a medium amount of intellectuality in his features, but he stood on the corner and shivered in the icy wind that blew from the top of the Masonic Temple down the back of his neck. He had been to his office, and after looking at the drafting boards stacked in the corner and the few draftsmen gathered around a table industriously studying a plan which failed to conceal a pack of cards, had concluded that there would be more liability of a client calling if he went home and let the office run itself while he inspected the supply of coal in the cellar. But he felt tired and told his wife when



ST. AUGUSTINE FROM ANASTASIA ISLAND.

he arrived that he believed he had caught cold, and thought to himself that the past five years of hard work without a vacation was not as hard as the enforced inactivity of the past few months. He had met a friend who was going to Florida for a month and who had told him that he could live, in St. Augustine even, for less money than at home, and the desire to get away from the cold and the discouragements of business for a time took hold of him. The next day found him studying the Big Four time tables and the



IN THE SURF IN JANUARY.

advantages of the Queen and Crescent-East Tennessee, Virginia & Georgia route, with its quick time to Jacksonville. He remembered meeting Mr. B. W. Wrenn, the genial passenger agent of the latter road, last summer, on the St. Lawrence, and learning that he had since assumed the general traffic management of the Plant system, which by rail and boat ramifies the whole state of

Florida, he wrote to him for further information. He didn't believe half the delightful stories his correspondence brought him, but they were sufficiently attractive to convince him of the wisdom of taking a trip to that sunny land. He told his wife that he expected to design a big hotel next year and must see those at St. Augustine, and would take her for a pleasure trip next winter, and went. Well, since he came back it has been noticed that while he says little about the architectural beauties of the state, his fish stories beat E. O. McCormick's tarpon story or Paul Lautrup when he describes the delights of Bluff Lake, and as the office boy, while he was absent, took in a client for a \$200,000 flat building he is so enthusiastic on the subject of a vacation in Florida that he has decided to build down on the Indian river and go every year.

ENAMELED BRICK.

THERE is perhaps no one product in general use that so distinctly marks the progress of a nation's growth and wealth as its clay products, in their various forms. Steel is a wonderful factor in the construction of the larger modern buildings, but its skeleton has to be clothed with the production of the clay-worker, and for exterior uses (as well as interior), there is no doubt but that enameled brick will take front rank in the future for this purpose, especially when it becomes known that all the beautiful designs in architecture and harmonious blending of colors are attainable in this class of work, to which is combined durability, beauty and freshness for all time. While great strides have been made in this country in the manufacture of common and pressed brick, paving brick, terra cotta, roofing tiles, etc., the enameled brick industry has not kept pace, and is in its infancy, chiefly on account of the greater difficulties involved in the manufacture of this specialty, so that hitherto most of the needed supply has been imported at large cost from England; but within the past year Chicago has added this industry, in all its completeness, to her former productions, so that the projectors of such structures as the great Marquette and Reliance buildings were able to procure the immense quantity of enameled brick required for these structures right at home, and no finer enameled work can be found in this city or elsewhere.

The true enameled brick is equally as good for external as for interior use. They stand the most severe and sudden climatic changes, and may be used in any climate and in any situation.

It is a surprise to anyone visiting England, to see the variety of purposes for which enameled bricks are being used in that country. They approach to their railway stations, exterior of buildings surrounding the platforms, booking offices, waiting rooms, toilet rooms, etc., are worked out in patterns and beautiful designs of different colored enameled bricks. They are used also in the large hotels and stores, postoffices, banking and insurance offices, factories, engine rooms, cemetery vaults, stable interiors, and also in the underground railways. Enameled brick have won such favor in England that the municipality of London requires that all courts and alleys be lined of this material. It reflects light, is fireproof, acquires no odor, is impervious to moisture and forms a finished surface which is highly ornamental.

The use of them is increasing each year. Heretofore many millions of English enameled brick have been shipped to this country annually; but that should no longer be necessary, as it is within the reach of architects to satisfy themselves, beyond all doubt, that the Chicago product is equal, if not superior to the best imported bricks, and saves the delays incidental to distant transportation. As compared with terra cotta, which is now being so extensively used, the cost of enameled brick is much less, laid in walls, and this, with its cleanliness, unchanging color (of any shade) and indestructibility, leaves it unapproached by any other building material.

NEW PUBLICATIONS.

ARCHITECT, OWNER AND BUILDER BEFORE THE LAW. Macmillan & Company, 66 Fifth avenue, New York, publishers. Price, \$3.00. A. C. McCurg & Co., Chicago.

The excellent typographical execution of this work at once attracts pleased attention; its composition, highest regard. Mr. T. M. Clark, the author, modestly disclaims a legal learning that would enable him to speak as an authority, but his apt as well as copious citation of cases, his discriminating judgment as to what was actually decided by the courts, his grasp of legal principles, all display a knowledge of the subject he treats of and a legal ability that would honor the ablest lawyers in the country. It is a masterly exposition of a much misunderstood and most important subject. It is written with judicial impartiality and fairness, yet with a felicitous style of expression that relieves it from the dullness of legal decisions. The practical and experienced business man as well as the laborious and painstaking compiler of authorities, conflicting as well as harmonious, and extending over the broad range not only of every state in our Union, but Great Britain and France, is stamped throughout the whole work. There have been many erroneous decisions rendered in this class of litigation, because neither court nor counsel understood the business features of the cause in hand. The nature of his work licensed Mr. Clark, in giving the law as decided, to clearly set forth, as he does, wherein it was variant to justice, and an improper interpretation because of that lack of technical knowledge. His criticisms of erroneous decisions are neither petulant nor frivolous. He writes with a practical knowledge of what he

treats, is independent, and points out errors of courts in no capacious spirit, but because he sees what is right from the superior vantage ground of practical experience. While it was not intended to be, and will not be quoted as an authority, acquaintance with it will be of the greatest aid to bench and bar in gaining a correct knowledge of the rights and duties of parties engaged in building operations. It will prove of exceeding usefulness to lawyers, as well as architects, owners and builders—a needed work well done, and sure to take high rank as a legal, literary and business treatise.

A TEXT-BOOK ON ROOFS AND BRIDGES. Part 3, Bridge Design. By Mansfield Merriman and Henry S. Jacoby. New York: John Wiley & Sons.

This book opens with a chapter on the history and literature of bridge design, which will be of use to the beginner. The subject of bridges does not interest architects, and therefore we shall not dwell upon it; but there is a chapter on roof trusses which is of interest to them. This chapter gives the design of a roof truss, with the specification thereof and details of the work; a young architect could not do better than to go through this example entirely and thoroughly. But few remarks can be made on the method pursued. The author gives the calculation of the rafter of the truss considered as a column, and this is, of course, correct; but the ordinary practical method is to select the proper columns by means of a table already calculated. He also speaks of tenons, or dowels, being used in the ends of the struts. We object to the use of tenons for the reason that it is more difficult to make a true square bearing when there is a tenon in the way than when there is not, besides it diminishes the area of the bearing. A spike or two will serve all the purposes of tenons, and be cheaper and better. It will not break off as a tenon may. In the drawing the truss shows an iron shoe, and is of a good design, but more complicated than is usual in such cases after all the strain is thrown upon the bolts. We regard the indent of the shoe into the tie beam as not to be relied upon, and while it may be well enough to make it, it should be disregarded in the calculations. With regard to the splices in the tie beam; we are not in favor usually of fish plates; if they must be used, then they better be of iron, in trusses of long span. The writer has found the easiest and best method, taking everything into consideration, is to make the tie beams out of two-inch joist bolted together, with the joints properly broken. This makes good, stiff work, and the timbers being all narrow there is no danger of any rotten or inferior timber, such as sometimes occurs in the inside of large scantlings. There is also a description of iron roof truss in the Berlin Iron Bridge Company's building, which may be of interests to architects. There is a good deal of detail information given with regard to methods of doing work which will be of use to that class for whom the book is intended, that is, the beginner. Like all the author's works it is orderly and rational. We judge it will (and ought to) have a considerable sale among the schools, and also among those young engineers, and even architects, who think it lies within their province to know something about what they are supposed to control.

J. R. W.

CLARK'S BUILDING SUPERINTENDENCE. A manual for young architects, students and others interested in building operations as carried on at the present day. By T. M. Clark, F. A. I. A. Twelfth edition, 1894. Macmillan & Co., New York; A. C. McClurg & Co., Chicago. \$3.

This valuable book, which we noticed some years ago when it first appeared from the press of Tichnor & Co., has now reached its twelfth edition. In its new dress it is published by Macmillan & Co., into whose hands the plates have gone. As a practical work on building art it stands alone, the field never before having been covered by any other. While the title states that it is a "manual for young architects and students," there are few practitioners that cannot find profit in reading it. While the influence of locality upon the author is evident (his practice has been mainly in the vicinity of Boston) he has made an honest effort to make it useful to any American architect. It is easy to make allowance for this, especially if the reader is acquainted with the different meanings of technical building terms which unfortunately prevail in various parts of the United States. It must, therefore, be borne in mind that the names of materials and parts of buildings are such as prevail in the eastern states. If the best methods of building described are not those of the central and western states, it is only because they are good models to follow. Western architects will do well sometimes to go back to the old way of doing things. Considering the vastness of the subject, if all the classes of buildings were described in their evolution with the thorough analytical treatment that the author has adopted, it is no wonder that he has only selected three. The first two, the Stone Church and the Frame Dwelling, are such as come within the experience of the largest number of practitioners. The third, described as a Town Hall, would be also applicable to many other classes of large buildings, and gives the author an opportunity to lay down the sound constructive principles that are applicable to the execution of heavy foundations, retaining walls, arches, buttresses, and large roof areas, that are common in other classes. Business buildings are not touched upon, but the excellent advice to superintendents in the first and second parts will also be valuable to those who are concerned with them. The first part dwells mainly upon the experience of a superintendent representing the architect in the erection of a church. The second part is addressed not only to the superintendent, but the architect and the owner, and it would be good preparation for anyone who proposes or expects to have a house of his own, to read it. The third part is addressed mainly to architects, and has more to do with planning the construction

of a building than its execution. The specifications in the latter part of the book are good food for young architects. We would have liked very much to have seen the imperative mood dropped entirely in these. A specification being part of a contract, in which tautology is not objectionable, and the variation of grammatical expression not essential for literary style, it is better to use the forms "are to be," "is to be," "should be," or "must be," throughout, rather than the imperative mood, which in some cases savors of a dictatorial manner toward contractors and builders.

The most important things for young architects and superintendents to learn are the tricks, subterfuges and prejudices of builders and foremen, especially in rural districts. The next is how to detect and overcome them. Firmness and tact are both necessary. The main object should be to get the best results with the least friction. Mr. Clark has covered nearly every point that may arise, and the treatment of the subject is altogether novel. He has shown how it is necessary to detect an error in its earliest stage—then to determine whether it was intentional, accidental, or the result of ignorance, and to take the proper course in each case without exciting the temper of the offender. A proper handling of each kind of dereliction generally results in gaining the respect and confidence of the builder, and the avoidance of such things in the future. An assumption of superior knowledge by the mechanic together with a prejudice based upon deeply grounded habit, which in many cases even is inherited, are the most obstructive mountains that the young architect has to encounter. Yet they may be surmounted. It often happens, too, that the architect has much to learn from the experience of the builder, without necessarily accepting his exact methods. As a result of friendly conference in such cases, both may be benefited. The architect, if he has tact enough to conceal his own ignorance, may always come out of the contest with dignity. But if he is too positive and iconoclastic he may not get the best of it, even if he is in the right.

There is no spectacle so sad, if not amusing, as a dictatorial and conceited young architect superintending his first important creation. He fills out to perfection an illustration of the well-known words of Shakespeare, "Man, fickle man, clothed with some brief authority," etc. To such Mr. Clark's book may be a useful guide to avoid the pitfalls which beset their paths. There may not be many of these gentlemen, but there should not be any. All young men must get experience in some way, and the sooner it is over the better. The slight office training that some of our young men receive after passing through the architectural schools is poor training for outdoor work. It would be better for them if their employers made it more a practice to take them on the rounds of their buildings occasionally instead of letting them wander about by moonlight alone. This seems to be the age of architectural precocity—that sort of precocity which enables young men with good family and social connections to secure important orders before they are duly qualified to undertake them. They very often get through with the first part, the designing, by employing clever draftsmen, just as that old school of so-called architects (now rapidly dying out), who could not hold a pencil, used to do. But the first superintendence, in which the old fellows were at home, often proves a *pons asinorum* to the young practitioner. Mr. Clark now offers him in this book advice drawn from some of his own experiences, for which years of practice might not suffice to the novice.

P. B. WIGHT.

THE BRICK AND CLAYWARE INDUSTRY IN THE UNITED STATES AND AT THE WORLD'S FAIR AT CHICAGO. By K. Dümmler, Halle, (Prussia), 1894.

The above is a work in German of 180 pages in quarto form and contains a large number of well-executed illustrations. An introduction gives the author's impressions of the country and her cities. He is delighted with the appearance of later buildings of New York, but does not—with noted exceptions—admire those at Chicago. In general appearance, however, owing to the many trees and grass plots in front of houses, he prefers the latter city. The work is divided into three chapters: Ceramic products; Machinery for their production; Cements. The author is delighted with the perfection of brick material prevailing in the United States, which is due to the facts that we are using more bricks than does any other country in the world, and that we do rarely, if ever, besmear our façades with stucco. This fashion undoubtedly has been the main cause of keeping other nations, especially Germany, in the background as to brickmaking. We find it stated—to give an instance—that in Germany a yard for the production of a few hundred thousand bricks occupies the same area of space which is occupied in St. Louis for the production of twenty millions. A complete survey is given of all other ceramic industries, from the making of tiles, common and glazed, up to the finest and most artistic porcelain ware of all nations, China and Japan not excepted. Many neat illustrations accompany the text. The second chapter, treating on machinery, is very thorough and of the highest interest to all manufacturers of brick and ceramic ware. It would lean too far to give particulars. The third and last chapter treats on Portland cement. Merely facts are given and no analysis. We are informed that Germany is decidedly ahead in this branch of industry. From 2,400,000 barrels manufactured at twenty-nine places in 1877 an advance has been made to more than 11,000,000 barrels now manufactured at sixty-three places. German cement is notably ahead of English cement and more so of American. The reasons, we opine, are that Germany is decidedly ahead in chemical science, which is the *conditio sine qua non* in the delicate process of the production of Portland

cement. In addition to this there is established, on demand of the manufacturers, a governmental test office, which judges of all brands by a certain standard. And it is asserted that there are manufacturers who produce qualities above the standard. The book is well printed on good paper, its language terse, fluent and agreeable. It ought to be in the hands of brickmakers, manufacturers of ceramics, and all lovers of these industries.

COLEMAN'S MECHANICS' LIENS. A treatise on the Mechanics' Lien Law of the State of Illinois. By J. A. Coleman, counselor-at-law, Chicago. The Wait Publishing Company, 1894.

This is not only a law book for lawyers, but for everybody that may have any interest in or relation to the erection of buildings. As its title indicates, it is mainly of local interest to the inhabitants of this state, but the copious decisions recited and references given are applicable to experience in every part of the United States. It is especially interesting to architects, for it is the first work of the kind in which the position of the architect with reference to the protection afforded him under the laws of Illinois has been clearly defined. It is a generally accepted fact, that while other states have for years been floundering in the mystery of uncertainty as to where they stand with reference to their mechanics' lien laws, the statutes of this state have been subject to revision in this respect during several of the recent sessions of the legislature. The best professional and lay talent has been employed on the work, experiments have been tried, and those features that have not proved successful have been eliminated from the statute books, so that now it is conceded that all conflicting interests are satisfied and the laws are proving to be as efficacious as possible in protecting the interests of all who are concerned in their execution. Of course, the party that, standing on high business principles, opposes all lien laws is not satisfied, and never will be until they are expunged. But it is a small one, and consists only of contractors of large capital who hope thereby to limit the number of persons in the contracting business, to drive out the small contractors by curtailing their credit with the material dealers, and even in the labor market. It is not likely that this will ever be done as long as labor is such a potent factor in choosing legislators, and the latter, when in office, are so anxious to concede so much to the labor vote. While there may be good reasons why all lien laws should be abolished, it is too late to expect any results from the well-known argument that they discriminate in favor of one class of business men and force those with whom they do not deal directly to become sureties for others who would have no standing in business without them. These pleas seem of late to have been abandoned, and the strongest agitation on the subject is that which had its birth in the National Association of Builders, namely, for uniform lien laws in all the states. To accomplish this is a herculean task, but no other organization is so competent to undertake it as this now powerful body. It is not probable, however, that this will again be attempted, for at their last convention, in Boston, the committee that had been considering the subject of lien laws for eight years was discharged, and it was recommended to the local exchanges to advocate reforms in the lien laws in their several states. When they get to work they cannot do better than to take the statute laws of Illinois as a model.

To the architects, who have now for some time enjoyed the protection of the lien laws of this state, those parts of Mr. Coleman's treatise that refer to them will be especially interesting. They are, however, very brief. Yet they contain useful warnings to architects to be not too confident as to the amount of protection they are entitled to. The first time protection was given to architects and superintendents was in the law of 1874, in which the first section said "that any person who shall, by contract, expressed or implied, or partly expressed or partly implied, with the owner of any lot or piece of land, furnish services as an architect or superintendent in building, altering, repairing or ornamenting any house or other building or appurtenance thereto on such lot, or upon any street or alley, or connected with such building or appurtenance, shall have a lien upon the whole of such tract of land or lot, and upon such house or building and appurtenance, for the amount due to him for such services." In this quotation the words referring to labor and materials have been eliminated. It will be seen, however, that the architect's services are classed with and afforded the same protection that is given to any other kind of service. Mr. Coleman says: "According to this, an architect has no lien, though he completes and delivers the plans and specifications; does all that his contract obliges him to do, unless the contemplated improvement is in part or whole put on the realty. He, as others named in the statute, cannot assert his lien on any lot of the owner. He can assert it only on the lot his work was done for; and if nothing were done on that lot through indecision, caprice, or change of mind on the part of the owner, he would have no security. The statute may mean 'who performs services for the purposes of such an improvement shall have a lien on the lot or tract intended to be improved,' but it does not say so. The architect must risk the doing of what his work is a guide of and preparation for to enable him to establish his lien." The architect being by law entitled to all the protection of an original contractor it would seem to be a wise precaution on his part to make his contract clearly with the owner. This can only be done, and the disputes which too often unfortunately arise can only be prevented by a written contract. Most architects seem to have great faith that the reference to their position and the incorporation of their names in the written contract between the owner and the builders, secures to them all the legal recognition that they require. This

is a mistake, for such is only an implied contract. It presumes that one has been made, but in reality it only has been a vague and indefinite verbal agreement and subject to all sorts of interpretations.

Section 103, on *Architects' Certificates*, is one of great interest to the profession, and is full of valuable information and instructive references. Having stated that the architect is on the same footing under the law as any contractor, the author adds (p. 23), "The statute gives them a lien only for their services as architects or as superintendents, and none for settling with contractors, etc. For any services they may render not included under the special character of such professional employment, they have no lien. If the charge for their services be a gross one, and includes compensation for services not strictly architectural, not strictly within a superintendent's duties, *there would be no lien in their favor for anything*. For any services outside of a strictly professional character they must keep a separate account, make a separate charge and collect as any ordinary debt." Sections 43 and 44, on the powers and duties of the architect and superintendent, are especially interesting, but too long to be repeated herein. They will furnish some architects good food for reflection, and clear up many matters that have been hitherto in doubt and have not been previously considered in any other legal treatise.

P. B. WIGHT.

STEAM, ITS GENERATION AND USE. Twenty-eighth Edition, 1894. The Babcock & Wilcox Company: New York and London.

Some 75,000 copies of "Steam" in the long form were issued previous to the edition of 1889, when it was determined to put the work into a shape more suitable for a library. Since that time new plates have been made and the work has been carefully revised, much new matter having been added. The edition of 1894 is a handsome octavo volume of 180 pages, in cloth, gilt, and is issued in English, German and French. "Steam" has long since been recognized as a standard work in nearly all the schools of technical engineering in this country, and is worthy a place on the shelves of any library.

OUR ILLUSTRATIONS.

Residence in Denver.
Residence in Chicago.
Residence in Philadelphia.
Detroit Medical College. M. L. Smith & Son, architects.
Details, Casino, Monte Carlo. Charles Garnier, architect.
Residence by Architect Frank L. Wright, for himself, at Oak Park, Illinois.
Residence of D. A. Dangler, Cleveland, Ohio. Fenimore C. Bate, architect.
Residence for Francis Colton, Washington, D. C. C. B. Keferstein, architect.
Wrought Ironwork from "Metal Work, Old and New," by George Wragge.
Store and warehouse for A. F. Risser & Co., Chicago. Willett & Pashley, architects.
Central Christian Church, Detroit, Michigan. Malcomson & Higginbotham, architects.
The Lee Building, Chicago, erected for postoffice, Station "C." Hill & Woltersdorf, architects.
Candee Apartment Building, Chicago. James H. Dinwiddie and Robert T. Newberry, architects, No. 1210 New York Life Building, Chicago.
First Presbyterian Church, Battle Creek, Michigan. James H. Dinwiddie and Robert T. Newberry, architects, No. 1210 New York Life Building, Chicago.
Photogravure Plate: House for C. E. Springer, 3801 to 3829 Forest avenue, Chicago. Church & Jobson, architects.

PHOTOGRAVURE PLATES.

Issued only with the Photogravure edition.

Residence of Egbert Jamieson, 28 Newport avenue, Chicago. J. L. Silsbee, architect.
Residence of O. W. Meisenburg, 145 Astor street, Chicago. Thomas & Rapp, architects.
Residences of Howard Shaw and Charles Atkinson, 4833 and 4835 Lake avenue, Chicago. Howard Shaw, architect.
Front View, St. Joseph Seminary, Nottingham, Ohio. C. F. Schweinfurth, architect, Cleveland. Also side view of same.
Residence of J. W. McClymonds, Massillon, Ohio. C. F. Schweinfurth, architect, Cleveland. Also interior view in same.

ASSOCIATION NOTES.

AMERICAN SOCIETY OF HEATING AND VENTILATING ENGINEERS.

The American Society of Heating and Ventilating Engineers completed its organization and adopted a constitution and by-laws September 10, 1894. The headquarters of the society are in New York. The objects of the society are, in general, the promotion of the arts and sciences connected with heat and ventilation, and the encouragement of good fellowship among the members. The society will maintain a high professional standard, establish a uniform scale of prices, encourage legislation requiring the society's standard of heating and ventilation, etc.

A regular member must be either a heating or ventilating engineer or expert, or a mechanical, civil, electrical, mining, naval or

military engineer, or an architect who has been professionally engaged in the work of heating or ventilating for at least five years, and not less than twenty-seven years of age. A junior member must be at least twenty-three years of age, and must have had three years' active experience in heating and ventilating, or one year's active practice if a graduate of a technical school. An associate member must have such a knowledge of the applied science of heating and ventilation as to qualify him to cooperate with the society. Honorary members are chosen by the society from among distinguished persons. Only regular members may vote or hold office. Every candidate must be proposed by at least two members. The initiation fee is \$15, and annual dues \$10.

The board of managers, consisting of seven members, including the president and secretary, have general control of all the affairs of the society. The annual meeting of the society will be held in New York in January of each year. Special meetings may be called at the discretion of the president.

Seventy-five charter members were enrolled at the organization, and the following officers were elected: President, Edward P. Bates; first vice-president, W. M. Mackay; second vice-president, Wiltsie F. Wolfe; third vice-president, Charles S. Onderdonk; secretary, L. H. Hart; treasurer, J. A. Goodrich. Board of managers—Fred P. Smith, chairman; H. J. Barron, James A. Harding, Edward P. Bates, Albert A. Cary, Henry Adams; L. H. Hart, secretary. Council—Prof. R. C. Carpenter, chairman; Charles W. Newton, F. W. Foster, Albert A. Cryer; U. G. Scollay, secretary.

The address of the society is postoffice box 1818, New York.

THE ARCHITECTURAL LEAGUE OF NEW YORK.

A supplementary circular is issued by the Architectural League, stating that at the December meeting it was resolved that architects be especially requested to contribute rendered plans, to accompany elevations and perspectives, to the tenth annual exhibition; and that the exhibition's committee, therefore, notify intending exhibitors that sets of drawings of this description will be more prominently hung than perspectives unaccompanied by plans.

ILLINOIS CHAPTER A. I. A.

The Illinois Chapter of the American Institute of Architects gave a dinner to the visiting architects attending the meeting of the Board of Directors of the Institute at Chicago on January 8, at the Chapter's quarters in the Institute of Building Arts. The handsome and spacious assembly room was greatly admired by the visitors, and the manager, Mr. Perse, received many congratulations for the manner in which every arrangement for the entertainment of the large company were carried out. As a prelude to the dinner Mr. Taylor, the architectural photographer, made a flash-light photograph of the assembled company. The few speeches that were indulged in were almost wholly by the visitors and were echoes of those which made the last convention notable.

MOSAICS.

W. P. TINSLEY, architect, Lynchburg, Virginia, and Charles C. Wilson, architect and sanitary engineer, formerly of Roanoke, Virginia, have formed a copartnership for the professional practice of architecture, under the firm name of Tinsley & Wilson, with Lynchburg, Virginia, as the base for future operations.

THE famous service of the Queen and Crescent route from Cincinnati, and Big Four from Chicago and the north, to Florida, is better than ever this year, the time from Cincinnati to Jacksonville being twenty-five hours in solid vestibule trains without change. Information regarding the Florida country can be had in abundance from any of the Queen and Crescent or Big Four offices at Cincinnati, Cleveland, Detroit, Chicago or any other large city, east or west.

A CONTRACTING firm, recently organized, which will enjoy the confidence of Chicago architects generally is that of Dungan & Powers, with offices at 611 Security Building. Mr. Powers, for the past twelve years the superintendent for Joseph Downey, the well-known contractor, has acquired a knowledge not only of the operation of the largest contracts but of the general details of a contracting business operated on a most extensive scale that is invaluable, while Mr. Dungan, having filled a corresponding position with G. A. Moses, completes a firm equipment that is most competent. Dungan & Powers have among other contracts one for a \$40,000 apartment house for Mr. Downey.

THE Christmas numbers of the best-known periodicals all seem to show a disposition to produce something unique in the way of cover designs. That by Will H. Bradley, of the *Inland Printer*, of Chicago, being probably the most exceptional in the list. This design is the last of a series which Mr. Bradley has designed and which have appeared on the current numbers of that journal during the year. The enterprise which is evidenced by the securing of so excellent an artist in black and white—and in this work Mr. Bradley occupies a field that is distinctively his own—is an index to the progressive spirit shown throughout this leading exponent of the typographical art. Its editor, Mr. A. H. McQuilkin, took charge of the editorial department of the journal at a time when its pages showed a thorough misunderstanding in regard to the proper relation between the business office and the editorial chair. Always handsomely printed and illustrated, the news and editorial features were neither classified nor at all times pertinent. This

has all been changed through Mr. McQuilkin's careful study of the wants of his readers and ability in catering to them. Each subject has its proper department and information is sought among the representative authorities in each class. The text matter is lightened by artistic photographs reproduced in half-tone, and when specimen pages are sought they are selected from the most artistic subjects to be procured. Thus the Christmas number of the *Inland Printer* probably illustrates, and in the most thoroughly technical and artistic manner, the best thought as well as the best typography and presswork known to modern journalism. The publishers and proprietors, the H. O. Shepard Company, of Chicago, have in this journal advanced the typographic art to an immeasurable extent, and the *Inland Printer* has done much to show foreign countries how the art of Gutenberg has advanced in the United States and assumed a status which is beyond ordinary criticism.

SYNOPSIS OF BUILDING NEWS.

Architects are invited to furnish for publication in this department monthly or occasional reports of their new work before the letting of contracts. Reports of buildings costing less than \$5,000 are not published.

Buffalo, N. Y.—Architect W. H. Archer reports: Church of Ascension, North Tonawanda, Medina stone and pressed brick, metal and shingle roof, gothic, seats seven hundred, steeple 130 feet with tower, with basement Sunday School, gothic style; cost, \$18,000. Orphanage, Front avenue, Buffalo, 105 by 108 feet; Medina stone and pressed brick, three stories and basement, metal roof, sanitary plumbing, steam heat, natural wood finish inside, plumbing and lighting, and all modern improvements, classic style; cost, \$35,000. An apartment building, to be erected at 218 Seneca street, Buffalo, for Charles Berrick; to be 27 by 75 feet in size, and three stories high; built of brick with stone foundations, tin roof, iron beams, plate glass, electric bells, gas fixtures, grates, steam heating, bathroom outfit, plumbing, washstands, water closet fixtures; cost, \$8,000. St. Hyacinth's Public School, to be located at Dunkirk, New York; to be 94 by 60 feet, three stories and basement, built of brick and stone, tin and shingle roofing, galvanized iron cornice, blackboards, school seats and furniture, steam heating, ventilators and plumbing fixtures; cost, \$20,000.

Architect William G. Reimann: For Louisa Johns, a three-story store and flat building, size 41 by 70 feet; cost, \$12,000.

Chicago, Ill.—Architect L. G. Hallberg: For J. Lehman, at Rokeby near Grace, a two-story house, to have all modern improvements. For Engquist & Carlson, a three-story flat building; to have a stone front, all the best of sanitary plumbing, mantels, gas fixtures, etc.

Architects Fry & Cunningham: For J. A. Reimann, a three-story flat building; to have a stone front, the sanitary plumbing, hardwood finish, gas fixtures, heating, etc.; to be erected at Twelfth street near West Fortieth.

Architect James Burns: For M. Dawson, a two-story flat building, to be erected at 946 Hamlin avenue; stone front, hardwood finish, the modern sanitary plumbing, gas fixtures, mantels, furnace, etc. For M. Branchfield, a two-story flat building, 22 by 50 feet, to be erected at 1214 Oak Grove avenue; to be of pressed brick and stone front, have hardwood interior, furnaces, mantels, gas fixtures, laundry tubs, bells and tubes.

Architects Dwen & White: For F. A. Crane, a two-story residence, 38 by 34 feet in size; to be erected at Wilmette; to be of frame construction, have stone basement, the sanitary improvements, furnace, etc. For J. Warden, a three-story residence, 25 by 70 feet in size; to be erected at Michigan avenue near Thirty-eighth street; to have a handsome stone front, hardwood interior, mantels, gas and electric fixtures, furnace, etc.

Architect H. M. Hansen: For M. W. Robinson, a four-story store and flat building, 48 feet front; to be of pressed brick with stone trimmings, have the best of modern sanitary plumbing, gas and electric fixtures, etc.

Architect Thomas Wing: For George Hankins, a three-story apartment house, 132 by 182 feet in size; to be erected at the northwest corner of Michigan boulevard and Ida street; to be of stone and pressed brick, have hardwood interior finish, mantels, gas and electric fixtures, etc.

Architect W. H. Lamson: For H. L. Wheatley, a three-story flat building, 45 by 50 feet in size; to be erected at the southeast corner of Commercial avenue and Addison street; to be of pressed brick and stone on two sides, have the best modern sanitary improvements, gas fixtures, etc.

Architect W. F. Pagels: For T. Sweeney, a three-story store and flat building, 25 by 125 feet in size; to be erected at Sheffield avenue, near School street; to be of pressed brick and stone front, have hardwood finish, the best of modern plumbing, gas fixtures, mantels, electric wiring, etc.

Architect H. T. Kley: For Thomas Brothers, a six-story warehouse, 45 by 80 feet in size; to be erected at the southeast corner of Randolph and Jefferson streets; to be of pressed brick and stone front, have elevator, electric light, etc.

Architects Brompton & Lawson: For J. Wing, at Montrose boulevard and Lincoln avenue, a two-story store and hall, 24 by 84 feet in size; to be of pressed brick with buff Bedford stone trimmings, have the necessary plumbing, gas fixtures, heating, etc.

Architects Hallstrom & Strandel: For N. E. Nelson, a three-story and basement flat building, 45 by 70 feet in size; to be erected at Orchard street; it will have a handsome stone front, hardwood interior finish, sanitary plumbing, gas fixtures, mantels, heating, electric wiring, etc. For M. Lofblad, a three-story store and flat building, 22 by 60 feet in size; to be erected at Newport avenue between Clark and Halsted streets; stone front, hardwood finish, electric wiring, mantels, etc.

Architect Niels Buck: For F. X. Gosselin, a two-story flat building; to have a New York marble front, hardwood finish, gas fixtures, the sanitary plumbing and mantels; to be erected at Woodside avenue, near Cornelia street. For M. H. Crosby, two two-story double residences, 40 by 65 feet in size; to be erected at Montrose boulevard, near Halsted street; they will have handsome buff Bedford stone fronts, all the modern sanitary arrangements, gas fixtures, mantels, etc.

Architect W. K. Johnston: For Messrs. Pease & Higgins, two two-story residences, to be erected at Elmhurst; to be of frame with stone basement, have hardwood interior, gas and electric fixtures, etc.

Architects Schroeder & Koster: For Captain Turnbull, at the corner of Twenty-fourth street and Homan avenue, a two-story store and flat building, 23 by 75 feet in size; to be of stone and pressed brick front, have mantels, gas fixtures, furnaces, etc. For J. H. Blass, a three-story and basement store and flat building and barn and dairy, 51 by 115 feet in size; to be erected at 6245 and 6247 Cottage Grove avenue; it will have a handsome buff Bedford stone front, slate sinks, laundry tubs, electric light, steam heating, etc. For R. Planet, a two-story frame residence to be erected at 5939 Carpenter street; to have a stone basement, hardwood interior finish, mantels, gas fixtures, etc.

Architects Watson & Hazleton: For Charles M. Smalley, at 5760 Rosalie court, a two-story residence, 21 by 40 feet in size; to be of pressed brick and stone front, have hardwood finish, mantels, gas fixtures, etc. For F. M. Kummerow, a two-story livery stable and store and flat building, 46 by 118 feet in size; to be erected at 532 West Chicago avenue; to be of pressed brick and stone front, have all the sanitary improvements, gas fixtures, mantels, etc.

Architects Elmendorf & Park: For J. S. Lamb, a three-story flat building, 25 by 58 feet in size; to be erected at Warren avenue near Sacramento; to be of pressed brick and stone front, have the sanitary conveniences, gas fixtures, furnaces. For Charles Elvey, a two-story store and flat building, 25 by 52 feet in size; to be erected at Madison street near Spaulding avenue; it will have a

stone front, all the modern improvements, furnaces. For Charles Jantz, at Adams street between Forty-first and Forty-second streets, a two-story flat building; to be of pressed brick and stone front, have hardwood finish, mantels, etc.

Architect H. P. Harned: For R. S. Peale, a four-story and basement apartment house, 150 by 50 feet in size; to be erected at Forty-seventh street and Grand boulevard; to be of pressed brick and stone front, have the best of modern plumbing, electric light, steam heating, etc.

Architect C. M. Palmer: For A. M. Ross, a four-story and basement apartment house, 80 by 150 feet in size; to be erected at the northeast corner of Bellevue place and Rush street; to be of pressed brick and stone front, have all the best of sanitary improvements, hardwood interior finish, mantels, gas and electric fixtures, electric light, steam heating.

Architects Stiles & Stone: For Arthur Butz, a three-story and basement flat building, 50 by 122 feet in size; to have a very neatly designed front of pressed brick and terra cotta, hardwood interior finish, gas and electric fixtures, heating, etc.

Architects Beers, Clay & Dutton: For S. S. Whitehouse, two three-story and basement residences, 45 by 75 feet in size; to be erected at 3957 to 3959 Ellis avenue; the fronts will be of pressed brick with terra cotta trimmings, the interior to have hardwood finish, gas and electric fixtures, the best of open plumbing, mantels, gas ranges and fireplaces, steam heating, etc.

George L. Otis will build at the corner of Madison street and Kedzie avenue, a three-story store and flat building, 99 by 60 feet in size; to be of pressed brick with terra cotta trimmings, have the modern sanitary plumbing, gas fixtures, etc. H. P. Harned made the plans.

Architects Cowles & Ohrenstein: For Barry Brothers, three two-story residences; to be erected at Forty-sixth street and Grand boulevard; they will have handsome stone fronts, hardwood finish, gas and electric fixtures, steam heating.

Architect Julius Speyer: For Messrs. Elmsley O. Whistler and Fred W. Deutsch, a seven-story and basement apartment house, 99 by 99 feet in size; to be erected at the corner of Vincennes avenue and Thirty-sixth street; the first story will be of stone and the rest of pressed brick with buff Bedford stone trimmings, have hardwood interior finish, mantels, gas and electric fixtures, marble and tile work, steam heating, etc.

Architect F. W. Kirkpatrick: For J. Frese, a four-story store and flat building, 25 by 65 feet in size; to be erected at Madison street between Homan avenue and Central Park boulevard; to be of pressed brick and stone front, have all the modern plumbing, gas fixtures, etc. For R. H. Thomas, a two-story and basement flat building, 25 by 60 feet in size; to be erected at Walnut street near Kedzie avenue; pressed brick and stone front, sanitary plumbing, mantels, etc.

Architect D. S. Peuteccost: For John A. Richards, at 1514 West Monroe street, a three-story flat building, 51 by 62, and a two-story 48 by 51 feet in size, to have pressed brick and stone fronts, all the modern sanitary arrangements, gas fixtures, mantels, electric wiring, etc.

Architect Fritz Lang: For T. E. O'Brien, a four-story and basement double apartment house, 50 by 105 feet in size; to be erected at Prairie avenue south of Forty-seventh street; it will have an arcadian brownstone front; the interior to be finished in quarter-sawn oak, have hardwood floors, the best of open nickel-plated plumbing, mantels, gas and electric fixtures, laundry fixtures, electric light, steam heating, etc. For O. Schoenecke, on Hoyne avenue near Thomas, a two-story and basement residence; to have a buff Bedford stone front, have oak finish, hardwood floors, laundry, gas fixtures, heating. For Henry Hoepe, on Milwaukee avenue, Lincoln and Brigham streets, a four-story and basement store and office building; to be of pressed brick and stone front, have all the best of modern plumbing, gas and electric fixtures, elevator, steam heating, electric light, speaking tubes, etc.

Architects Fraenkel & Schmidt: For R. Rosenthal, five two-story and attic residences; to be erected on Ellis avenue and Fifty-fifth street; they will have handsome stone fronts, hardwood finish, the best of modern plumbing, gas and electric fixtures, furnaces, etc.

Architect Ira C. Saxe: For Hulda Saxe, a two-story and basement flat building, 22 by 60 feet in size; to be erected at Sangamon street between Seventieth and Seventy-first streets; to have a front of pressed brick with buff Bedford stone trimmings, hardwood finish and mantels, gas fixtures, furnaces, etc. For Elizabeth Hayes, a two-story and basement store and flat building; to be erected on Follansbee street near Humboldt Park; pressed brick and stone front, all the modern improvements, furnaces.

Architect R. B. Powell: For F. T. Murphy, three two-story flats; to be erected at Fifty-fifth street near C. & I. R. R.; to have stone fronts, the modern plumbing, mantels, etc. Also made plans for three two-story residences, to be erected on Vernon Park place near Forty-third street; stone fronts, hardwood finish, mantels, gas fixtures, etc. Also for a three-story and basement flat building, to be erected at Prairie avenue near Forty-seventh street; to have a buff Bedford stone front, hardwood interior, and mantels, gas and electric fixtures, etc.

Architect G. L. Harvey: For J. R. Hoxie, at Forty-fifth street and Michigan avenue, a three-story residence, 44 by 88 feet in size; to be of pressed brick with blue Bedford stone, have hardwood finish, mantels, gas and electric fixtures, electric light, etc.; also stable of pressed brick and stone; size, 32 by 50 feet; cost, \$45,000. For J. E. Jenkins, at 2625 Prairie avenue, a three-story residence, 35 by 100 feet in size; to have a handsomely designed front of blue Bedford stone with Spanish tile roof, interior to be finished in mahogany, curly birch, pine and English oak; the cost will be about \$30,000. For H. W. Bryant, at 844 Fifty-fourth court, a two-story double apartment house, 29 by 70 feet in size; to have a front of Raindrop stone and Raindrop pressed brick, hardwood floors, and mantels, gas fixtures, ranges and fireplaces, furnaces, etc. For Dwight Bryant, at 833 Fifty-fourth court, a two-story flat building; to have a front of similar materials as above, will put in all the modern improvements. Also at West Forty-eighth and Lake streets, a two-story store and flat building, 25 by 70 feet in size; to have a front of pressed brick, stone and iron, the modern sanitary plumbing, mantels, gas fixtures, etc. For William M. Derby, at West Forty-eighth and Lake streets, a two-story store and flat building, 50 feet front; of pressed brick, stone and iron, have hardwood interior finish, and mantels, gas fixtures, furnaces, etc.

Architects Curry & Foster: For E. H. Allen, a two-story, basement and attic residence, 25 by 46 feet in size; to be erected at South Evanston; to be of frame with brick basement, have hardwood finish, and mantels, the best of sanitary plumbing, etc. For R. D. Curry & Co., a three-story store and flat building, 72 by 125 feet in size; to be erected at the corner of Lytle and Taylor streets; the fronts will be of pressed brick with buff Bedford stone trimmings, have hardwood interior finish, and mantels, gas fixtures, heating, etc.

Architects Swift & Hall: For Mrs. E. J. Gamet, a three-story flat building, 22 by 80 feet in size; to be erected at Elaine avenue near Cornelia street; the basement will be of stone and above of pressed brick and stone, will put in all the modern plumbing, mantels, gas fixtures, etc.

Architect A. F. Hussander: For A. D. McLean, a three-story and basement store and flat building; to be erected at Halsted street near Lill avenue; pressed brick and stone front, the sanitary plumbing, gas fixtures, mantels, furnaces, etc.

Architect E. H. Turnock: For A. W. Kistenbrock, a handsome two-story residence, 40 by 50 feet in size; to be erected at Oak Park; to be of frame with stone basement, have hardwood interior finish, mantels, gas and electric fixtures, laundry fixtures, furnace, etc.

Architects Jenney & Mundie: For H. Channon, at 144 Ontario street, a six-story warehouse, 50 by 100 feet in size; to be of pressed brick and stone front; have steam heating, elevators, etc.

Architects Beyer & Rautert: For The Best Brewing Company, a brewery, 120 by 138 feet, at Herndon and Fletcher streets; to be of stone and pressed brick, have elevators, etc.

Architect D. E. Postle: For Mrs. Toussaint, a three-story flat building, 25 by 83 feet in size, to be erected at 4148 Grand boulevard; it will have a handsome stone front, hardwood interior finish and mantels, gas and electric fixtures, steam heating, electric light, landries, etc.

Architects Hill & Woltersdorf: For Mrs. Turnbull, a two-story and basement flat building, 25 by 58 feet in size; to be erected on Adams street near Maryland avenue; to have a stone front, the best sanitary improvements, gas

fixtures, ranges and fireplaces. For Frank O. Day, a two-story and basement store and flat building, 25 by 125 feet in size, to be erected at the corner of Twentieth and Robey streets; it will be of pressed brick with stone trimmings, have iron store fronts, the modern plumbing, gas fixtures, etc.; will put in bowling alley; there will be five stores and five suites of apartments.

Architect J. L. Meriam: For R. J. Nelson, at Cottage Grove avenue, north of Thirty-eighth court, a block of stores 70 by 66 feet; to be of pressed brick and stone; have plumbing, gas fixtures, etc.

Architect S. N. Crowen: For O. Beuson, a four-story and basement apartment house, to be erected at 494 to 500 Belden avenue; to have a handsomely designed front of pressed brick, with buff Bedford stone trimmings, hardwood interior finish and floors, the best of modern open plumbing, gas fixtures, landries, steam heating, etc.

Architect William Gauger: For Julius Tesme, a three-story and basement flat building, 48 feet front, to be erected on Elston avenue; it will be of pressed brick and stone front, have the modern plumbing, mantels, etc.

Architect Robert C. Berlin: For Theodore Gotthman, a two-story, basement and attic residence, 36 by 56 feet in size; to be erected at Malden street and Wilson avenue, Ravenswood; it will be of frame, with stone basement, have hardwood interior finish, mantels, gas and electric fixtures, laundry fixtures, electric bells, speaking tubes and furnace.

Architect Ernest Mayo: For J. M. Thomas, a two-story residence, 35 by 50 feet in size, to be erected at Evanston; it will be constructed in the old English style—in plaster, brick and timber—have all hardwood finish for the interior, the best of open plumbing, gas and electric fixtures, furnace, etc.

Architect C. H. Gottig: For J. Kalbas, a three-story flat building, 25 by 60 feet in size, to be erected at Melrose street; the front will be of pressed brick and stone; the interior will be finished in hardwood, have the modern plumbing, mantels, gas fixtures and laundry fixtures.

Architect A. Sandegren: Made plans for a handsome three-story residence, 21 by 70 feet in size; to be erected at Forty-eighth street near Vincennes avenue; it will have a stone front, hardwood interior finish and mantels, gas and electric fixtures, etc.

Architect H. H. Richards: Made plans for a two-story, basement and attic residence, 40 by 60 feet in size, to be erected at Berwyn; it will be of frame construction, with stone basement, have all the modern sanitary improvements, hardwood interior finish, mantels, furnace, etc. Also made plans for a four-story store and flat building, 50 feet front; to be of stone and pressed brick, have hardwood finish, mantels, gas fixtures, electric wiring, laundry fixtures, etc.

Architect Victor Hellstrom: For M. J. Faherty, a two-story flat building, 22 by 54 feet in size; to be erected at 1046 Addison avenue; to be of ornamental pressed brick front, have all the sanitary improvements, oak and cypress finish, mantels, gas fixtures, furnaces. For P. M. Johnson, a three-story flat building, 22 by 54 feet in size; to be erected at 1225 Oak Grove avenue; to have a front of pressed brick with stone trimmings, all the sanitary improvements, gas fixtures, oak and cypress finish, beveled and plate glass, furnaces, etc. For Arthur W. Peterson, a three-story store and flat building, 24 by 56 feet in size; to be erected at 1279 North Halsted street; to be of blue Bedford stone front, have interior finished in oak and cypress, all the modern plumbing, heating, etc. For N. Nelson, a three-story and basement flat building, 22 by 57 feet in size; to be erected at Melrose street; pressed brick and stone front, etc.

Architects Kounhn & Sandegren: Making plans for remodeling the Commercial Hotel, at the corner of Lake and La Salle streets. The hotel part will be strictly first-class, and be handsomely finished in hardwoods and marble wainscoting, mosaic floors, etc.; in addition there will be a Roman bathing establishment which will include Russian and Turkish baths, swimming baths, etc.; a separate establishment for ladies and gentlemen; they will be elegantly finished up in marble, mosaic and onyx; they will be similar to the Roman baths in Vienna, which cost about \$5,000,000; work will be commenced immediately and will be under the superintendence of B. Fried, who has made a special study of the Roman baths in Vienna. The same architects are making drawings for "The Waldorf" apartment house, 42 by 102 feet in size, four stories and basement, to be erected at Lake avenue and Fifty-fifth street; it will be of pressed brick and stone front, have hardwood interior finish, copper cornice, the best of open, nickel-plate plumbing, elevators, electric light, steam heating, etc.

Architect Manrice G. O'Brien: Is taking figures for two ten-room, stone-front residences, to be built on Forty-ninth street, 200 feet east of Grand boulevard, for Richard Walsh; they will cost \$10,000. Also for R. Walsh and L. J. Thomas, three handsome three-story stone front residences, on Forty-eighth street, 150 feet east of Grand boulevard; finished in hardwoods, to have consoles, sideboards, hall trees, cheval mantels, steam heating, etc.; cost \$18,000.

Denver, Colo.—Architect J. J. Huddart: For Mrs. J. P. Gilsin, a two-story brick dwelling, size 26 by 50 feet; cost \$6,000.

Architect W. E. Fisher: For A. L. Doud, a two-story brick residence, size 36 by 47 feet; cost \$6,000.

6 permits during December for dwellings	Value	\$19,500
5 " " " " " business blocks	"	9,500
16 " " " " " miscellaneous	"	5,400
6 " " " " " stables	"	2,800

33 " " " " " total	"	\$37,200
Total for year 1894		\$765,180

Detroit, Mich.—Architects John Scott & Co.: For Gabriel Torch, a two-story double brick residence, on southeast corner Brush and Brewster streets; cost \$6,500. For H. H. Dickinson, a two-story double brick store, to be built corner Third and Larned streets; cost \$5,000.

Architects Donaldson & Meier: For The Art Store Works, a four-story addition to factory plant on Russell street, size 72 by 100 feet; brick; cost \$8,000. For Schwaubeck Brothers, a two-story brick factory at the junction of Milwaukee avenue and D. G. H. & M. R. R. tracks, size 48 by 207 feet; \$9,000.

Architects M. L. Smith & Son: For M. A. Edwards, two two-story brick residences, to be built on Erstine street near Woodward avenue, pressed brick and stone; cost \$10,500.

Architect Joseph E. Mills: For W. W. Hill, a three-story brick store in Plymouth, Indiana; cost \$7,000. For Mrs. M. O'Toole, a two-story brick flat building, to cost \$7,500.

Architects Mason & Rice: For John D. Monat, a four-story brick apartment building, on Lincoln near Alexandrine avenues, size 72 by 46 feet; cost \$20,000.

Architects Spur & Rohus: For Charles E. Sigelko, a two-story brick apartment and store building; cost \$5,000.

Architect R. E. Raseman: For Mrs. Mary T. Bemart, a two-story brick residence, on John R. street; cost \$5,000.

Architects Stratton & Baldwin: For M. B. Stevens, remodeling brick residence in Grosse Point, Michigan; cost \$5,000.

Architects Rogers & Macfarlane: For N. S. Smith, a two-story frame residence, to cost \$5,000.

Architect H. W. Chamberlin: For H. W. Holcomb, an eight-story brick and stone apartment building, on Merrick avenue near Greenwood, size 50 by 100 feet; cost \$75,000.

Architect F. J. Greneir: For George Hooper, a two-story stone and brick residence, with all modern improvements, to cost \$7,000.

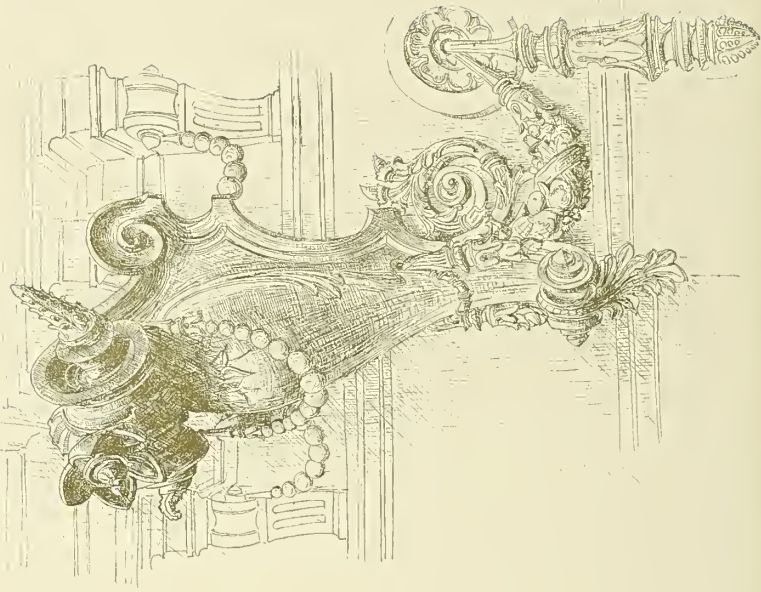
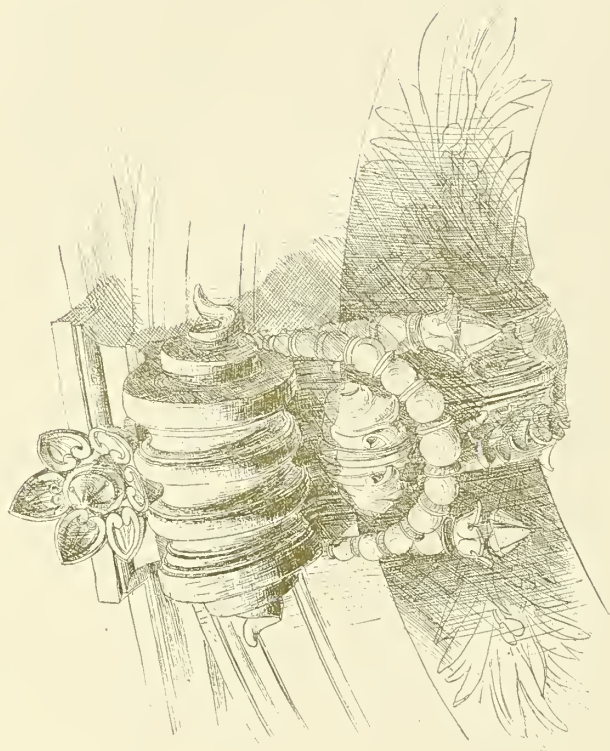
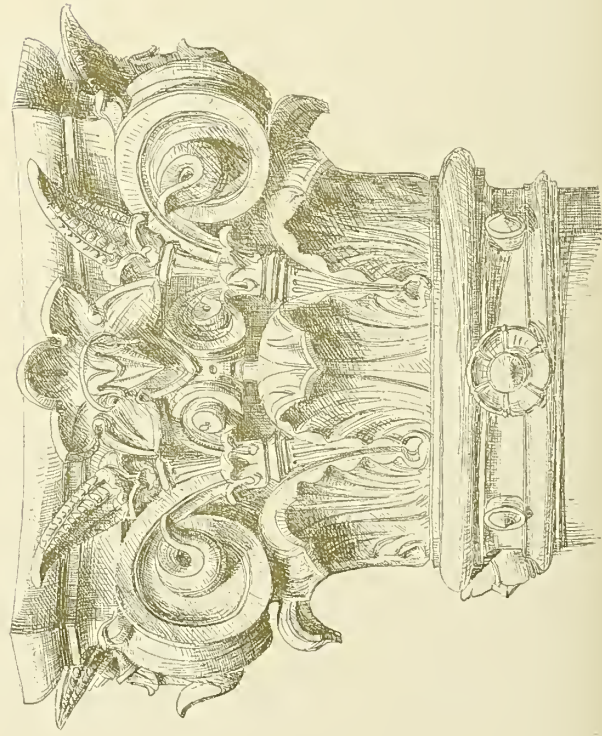
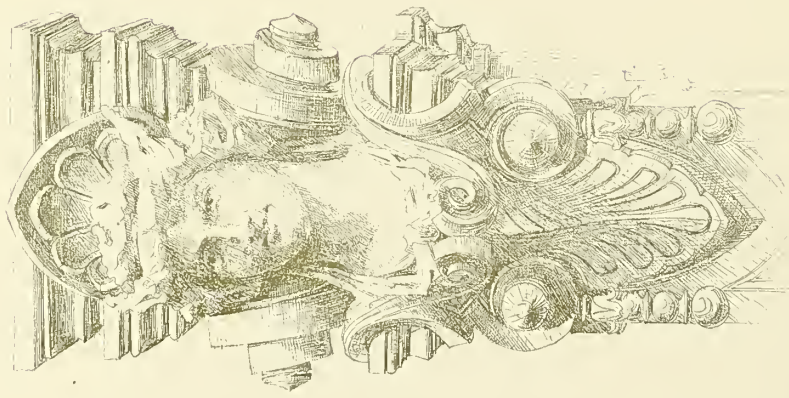
Minneapolis, Minn.—Architect W. C. Whitney: For J. T. Gilbert, of Milwaukee, remodeling three-story flat building, at a cost of \$18,000.

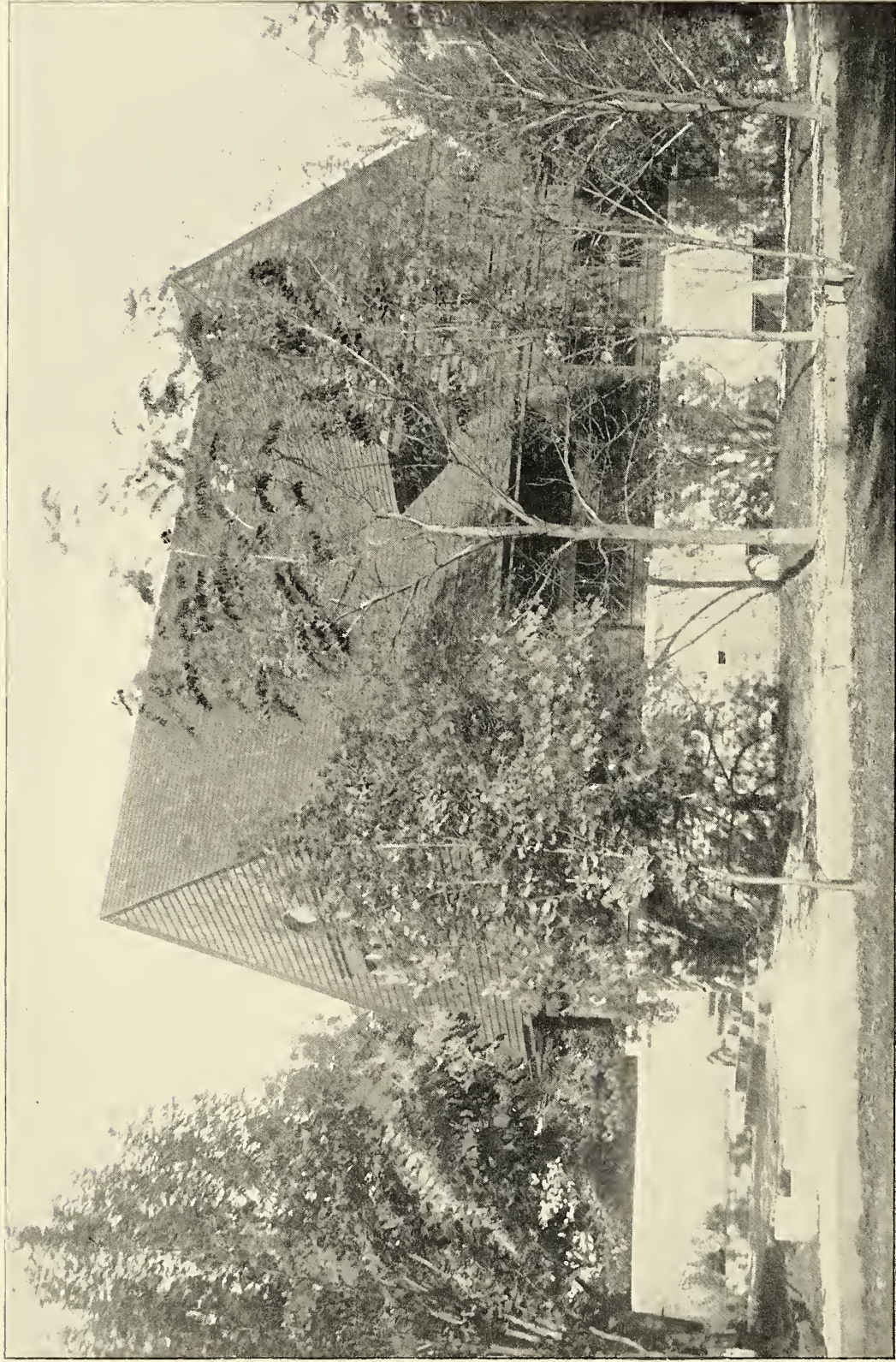
Architect William M. Kenyon: For A. R. Rogers, a two-story residence, size 30 by 70 feet; cost \$5,000.

Pittsburgh, Penn.—Architect Charles Bickel: For city of Pittsburgh, a six-story building for Department of Public Safety, brick and stone, tile roof, size 53 by 180 feet; cost \$180,000.

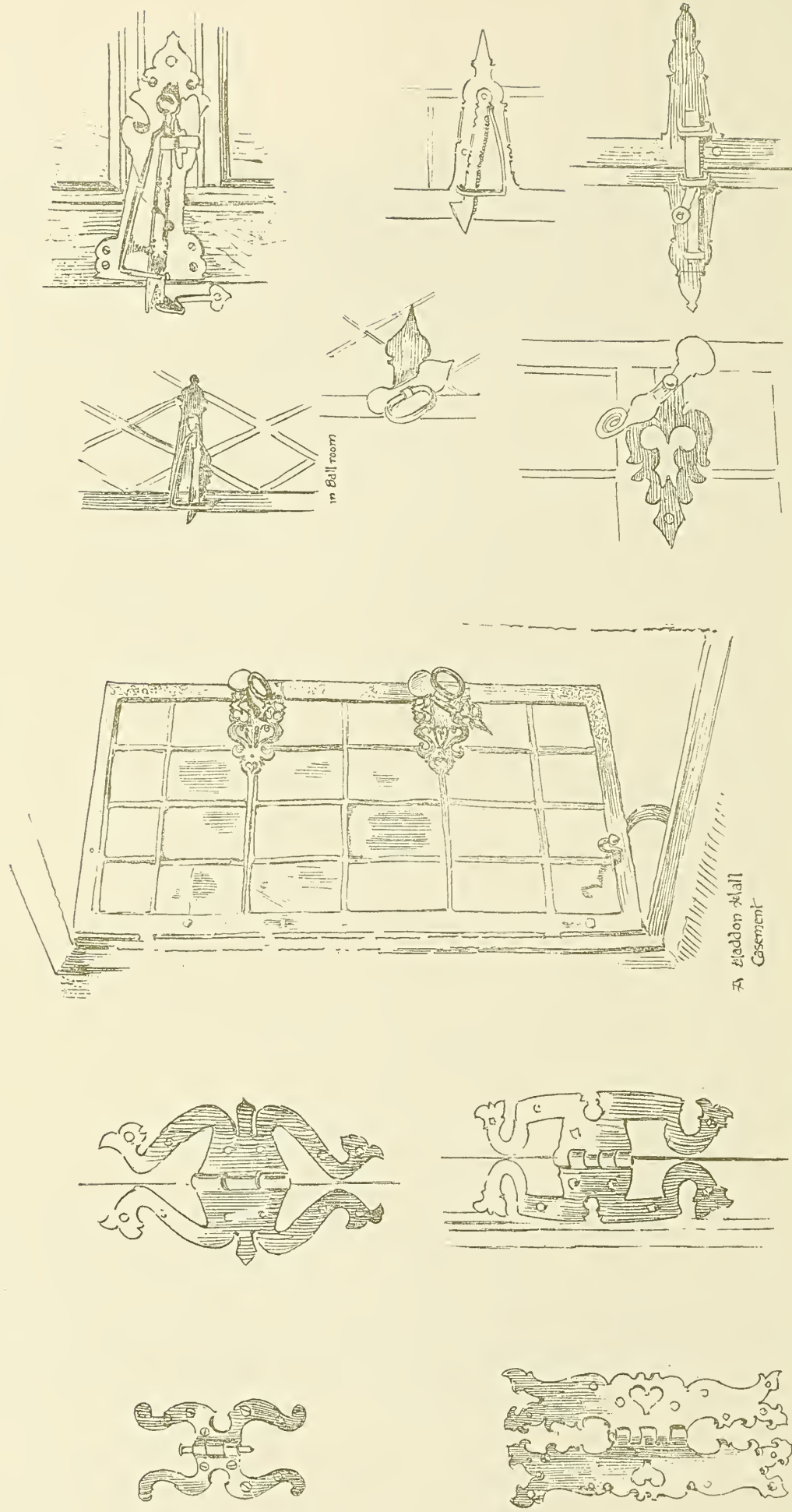
St. Louis, Mo.—Architects C. W. Kellogg & Son: For Ira J. Hedrick, a two-story store and flat building, size 212 by 197 feet; brick and stone, composition roof; cost \$75,000.

Architects Kirchner & Kirchner: For Board of Education, a three-story brick and stone schoolhouse, size 80 by 100 feet; cost \$50,000.





RESIDENCE BY ARCHITECT FRANK L. WRIGHT, FOR HIMSELF, OAK PARK, ILLINOIS.



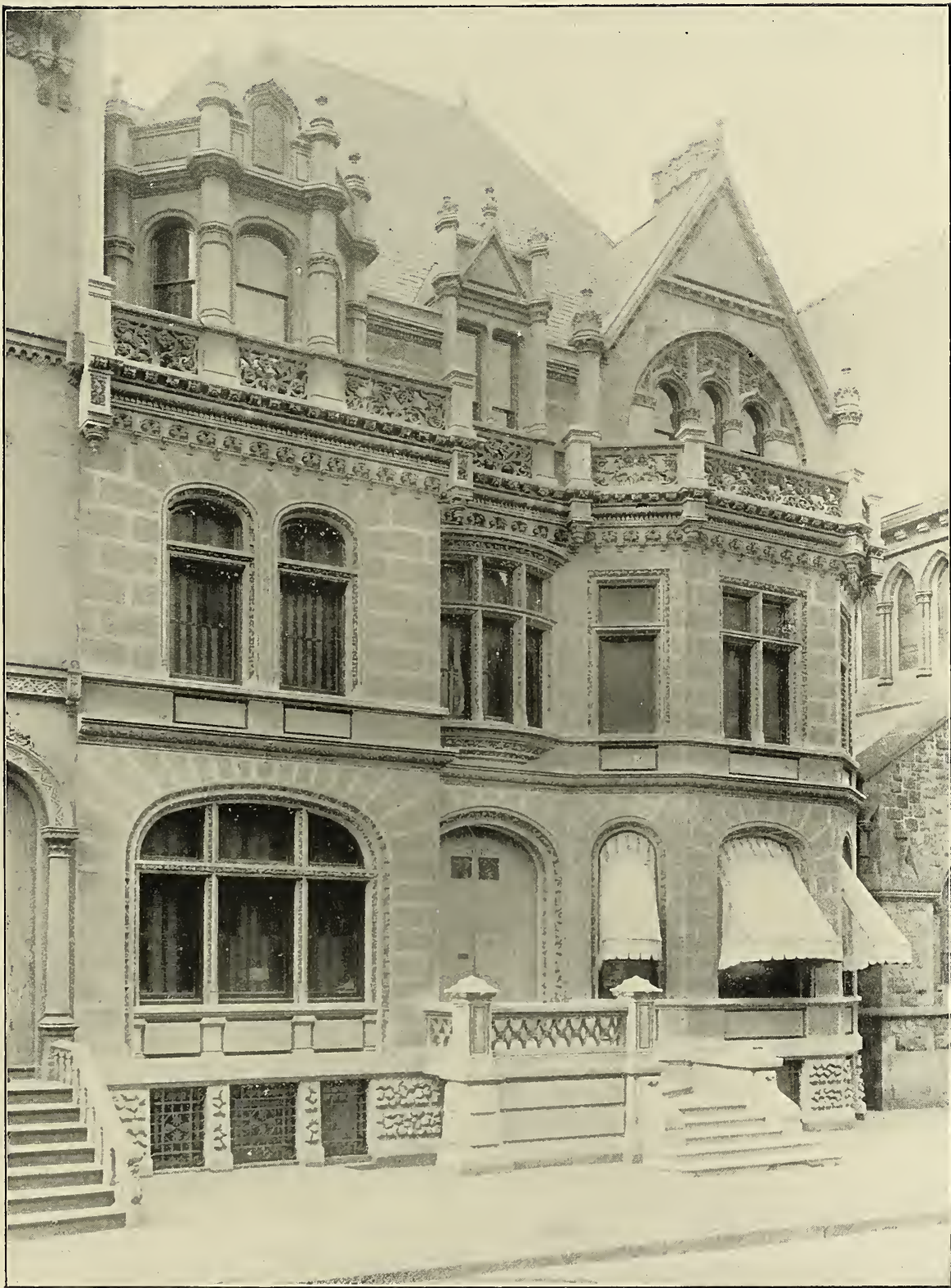
Hinges from Meladon

from "Metalwork Old & New"
by Geo. W. Bragg.

Casement Fasteners from Meladon



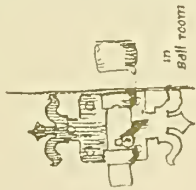
RESIDENCE IN CHICAGO.



RESIDENCE IN PHILADELPHIA.



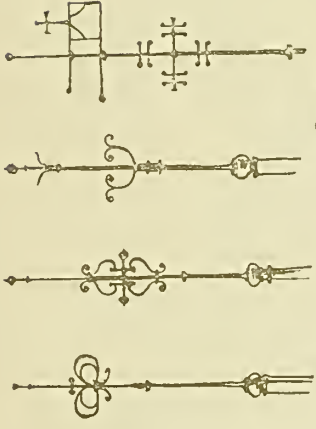
hinge to chapel
outer door



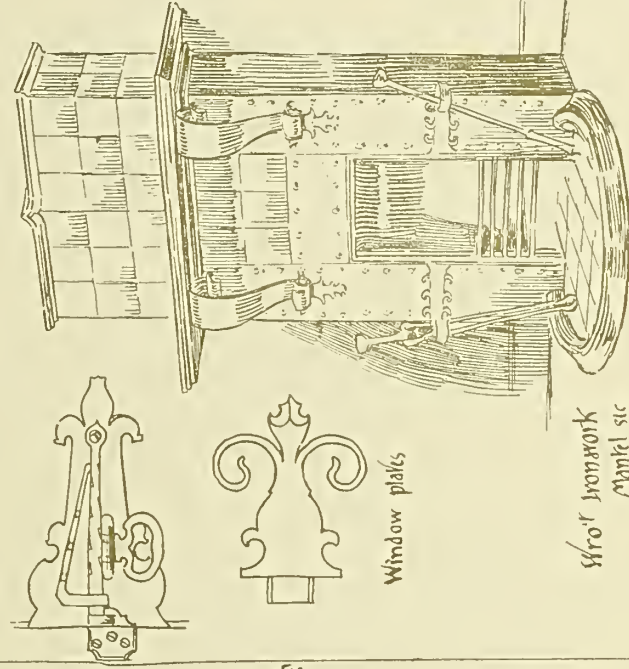
in
Ball room



Hinges from Haddon



finials



Wroth Ironwork

Mankel sic

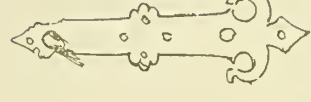
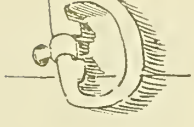
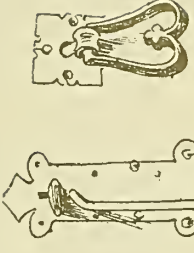
M8 Cy Bank Edgar Wood Archibed
Hollinwood



Window plates



Wroth Iron Handles

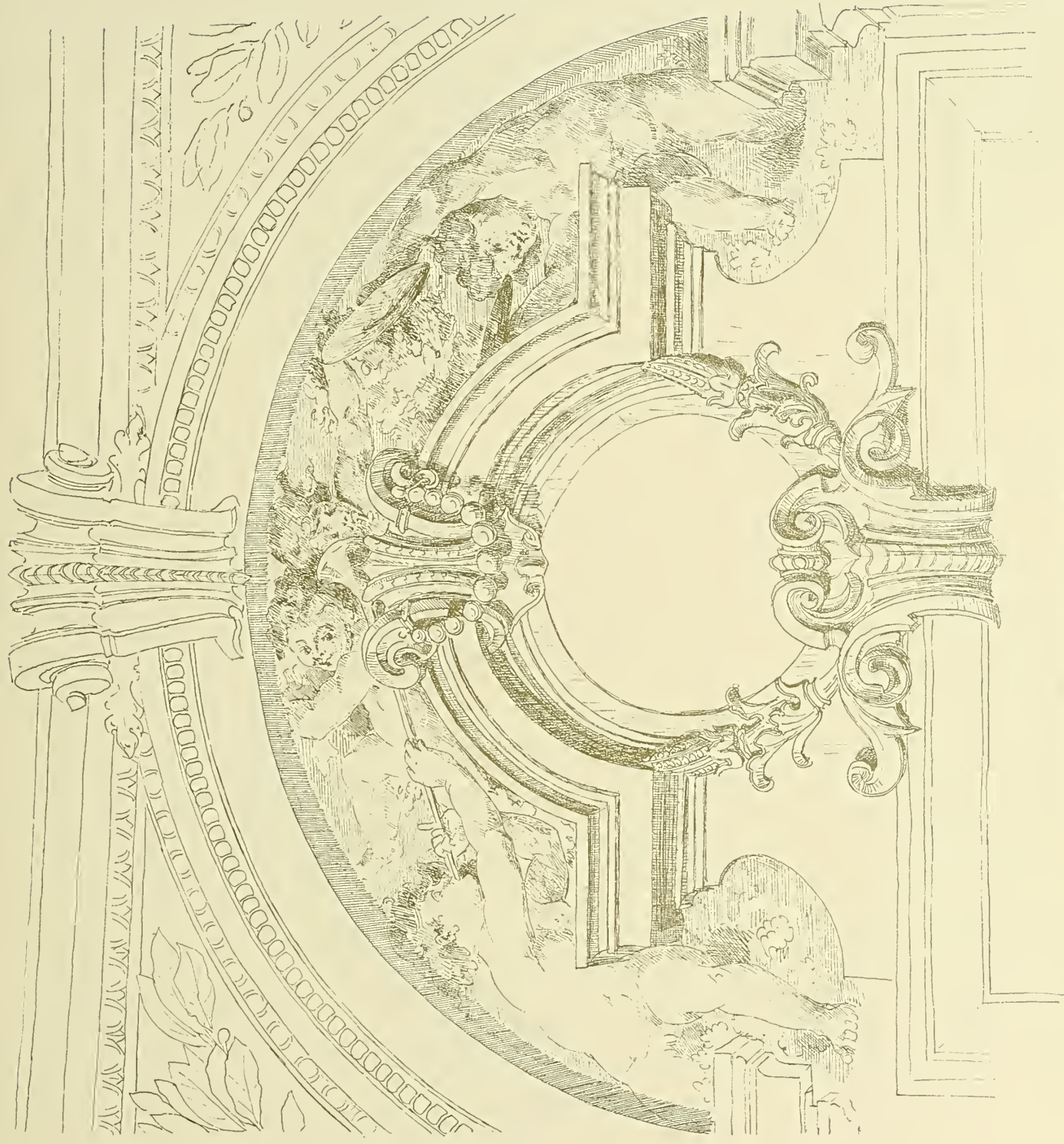


Latch plates & handles from Haddon

NEW METALWORK BY GEORGE WRAGGE, SALFORD

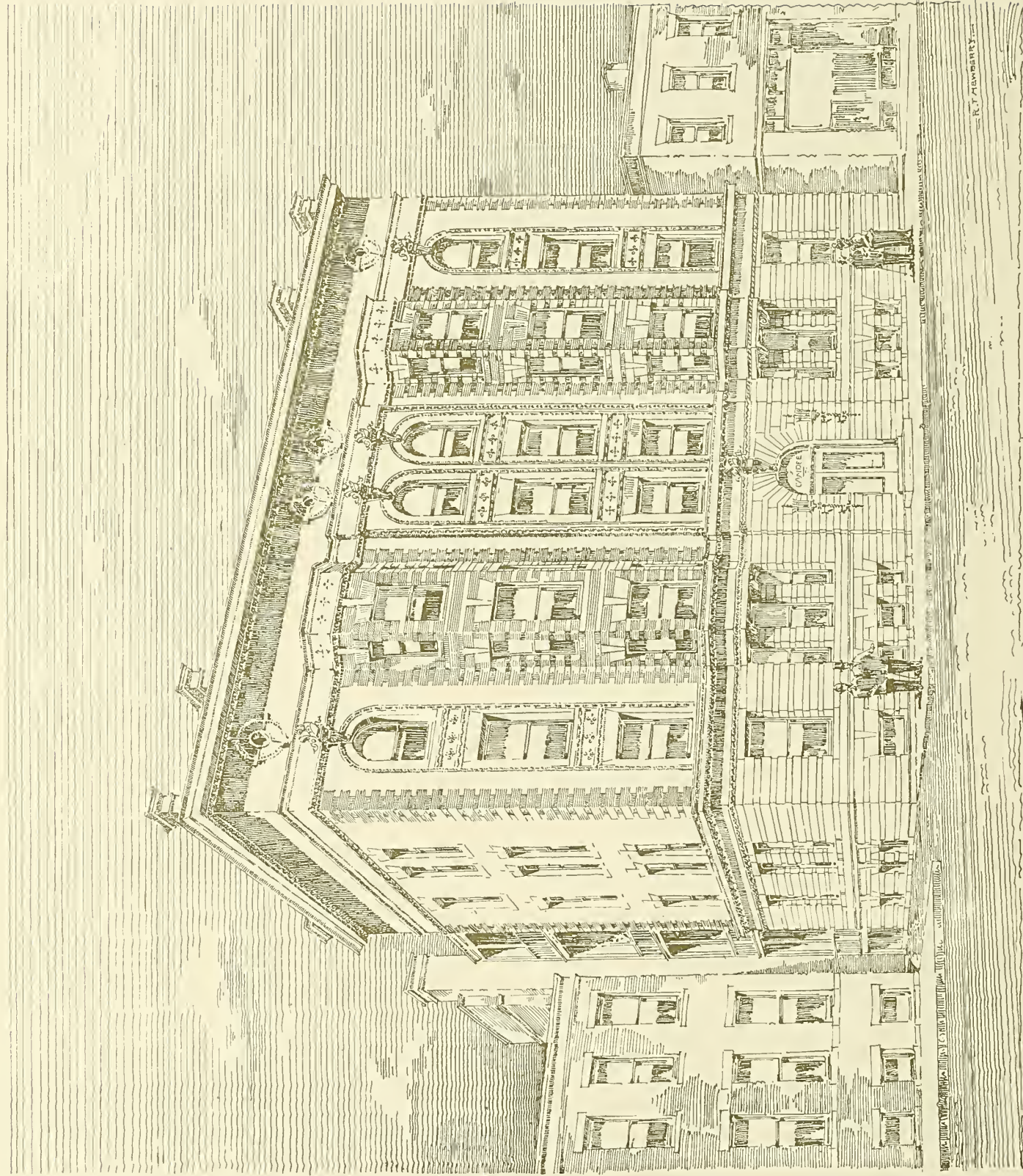


RESIDENCE OF D. A. DANGLER, CLEVELAND, OHIO.
FENIMORE C. BATE, ARCHITECT.



DETAILS OF CASINO AT MONTE CARLO.

CHARLES GARNIER, ARCHITECT.

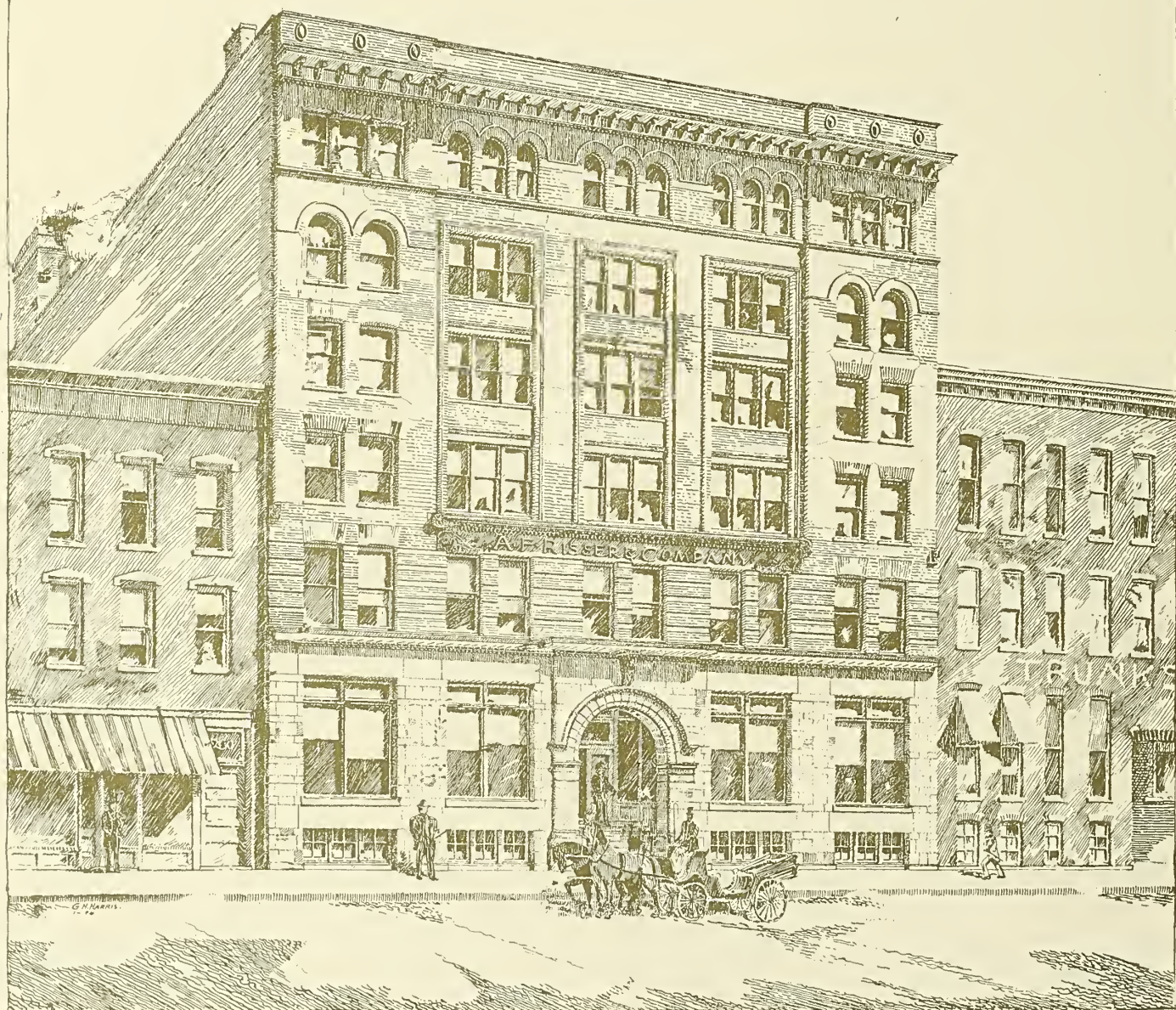


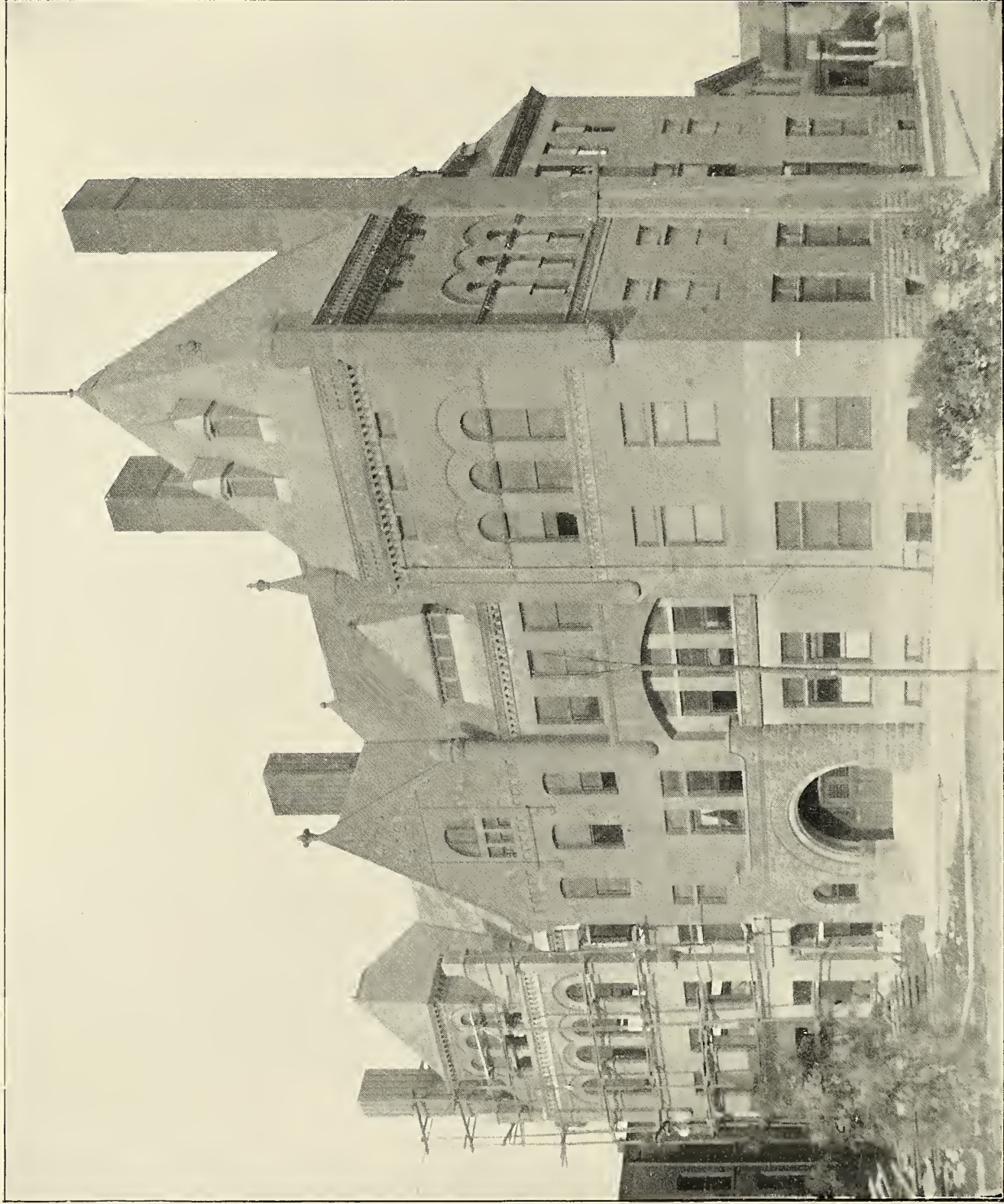


RESIDENCE IN DENVER.

STORE & WAREHOUSE
FOR A. F. RISSE & CO.
WEST POLK STREET
CHICAGO ILL.

WILLET & PASHLEY ARCHITECTS.





DETROIT MEDICAL COLLEGE.

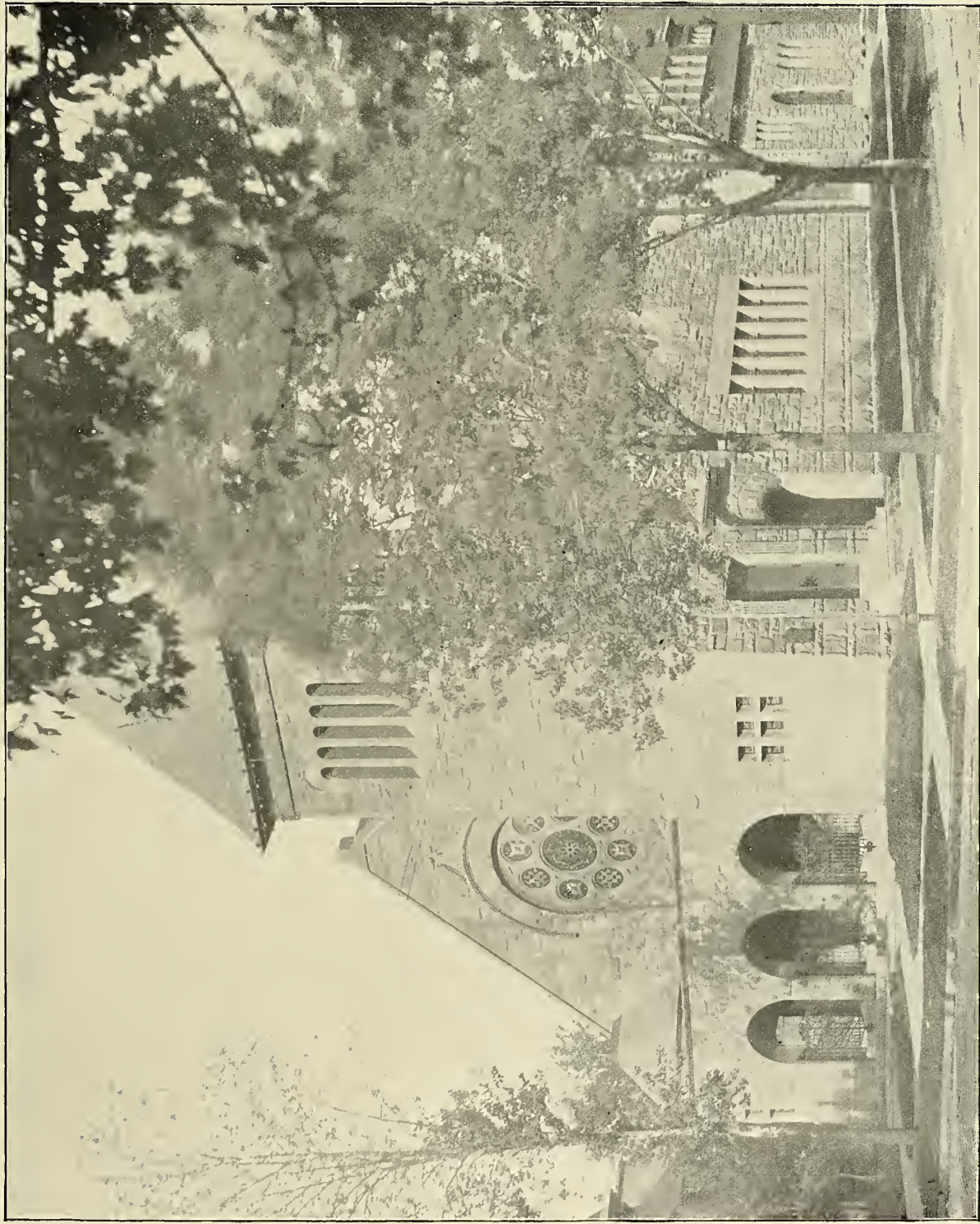
M. L. SMITH & SON, ARCHITECTS.



HOUSES FOR C. E. SPRINGER, CHICAGO.

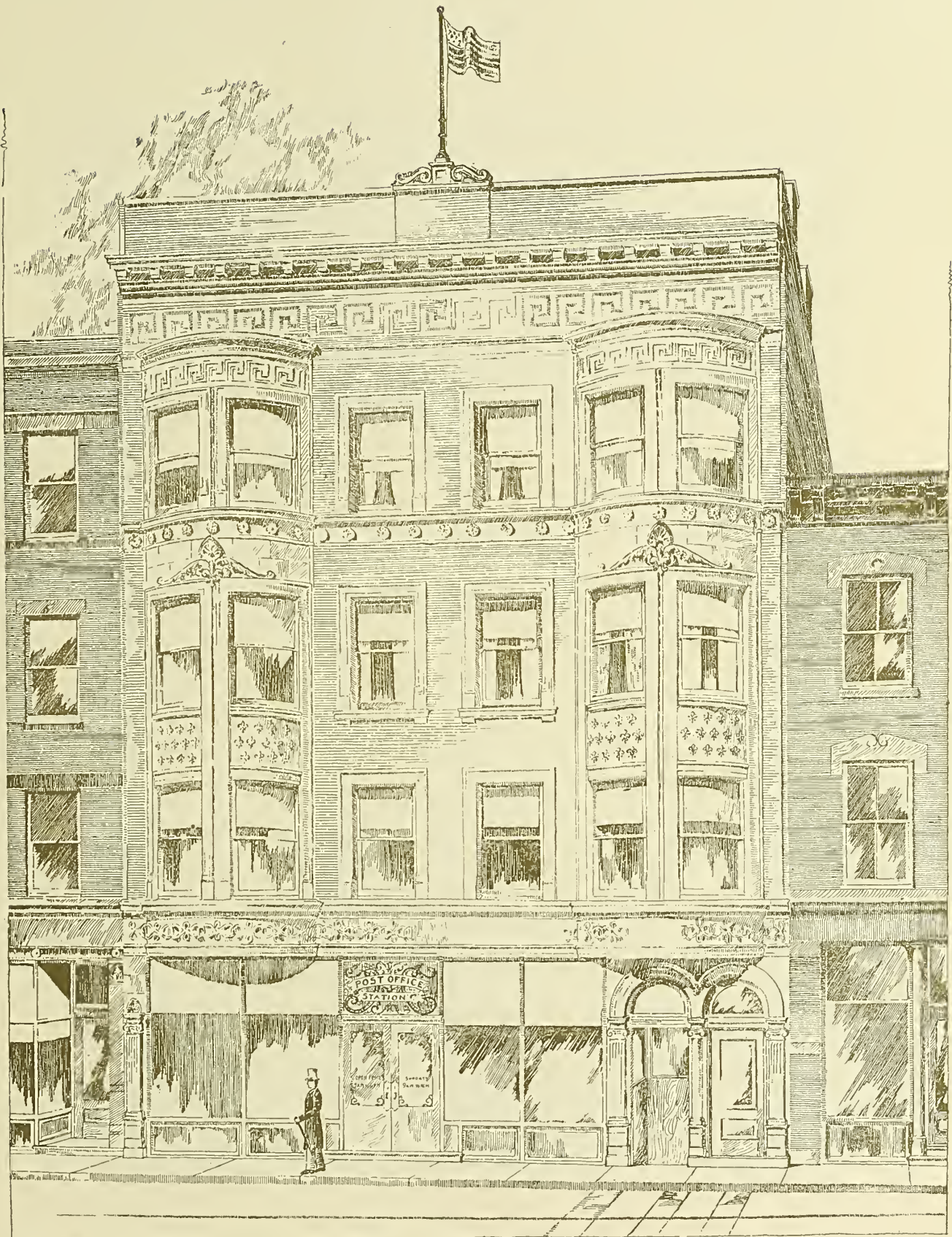
CHURCH & JOHNSON, ARCHITECTS.

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CENTRAL CHRISTIAN CHURCH, DETROIT.

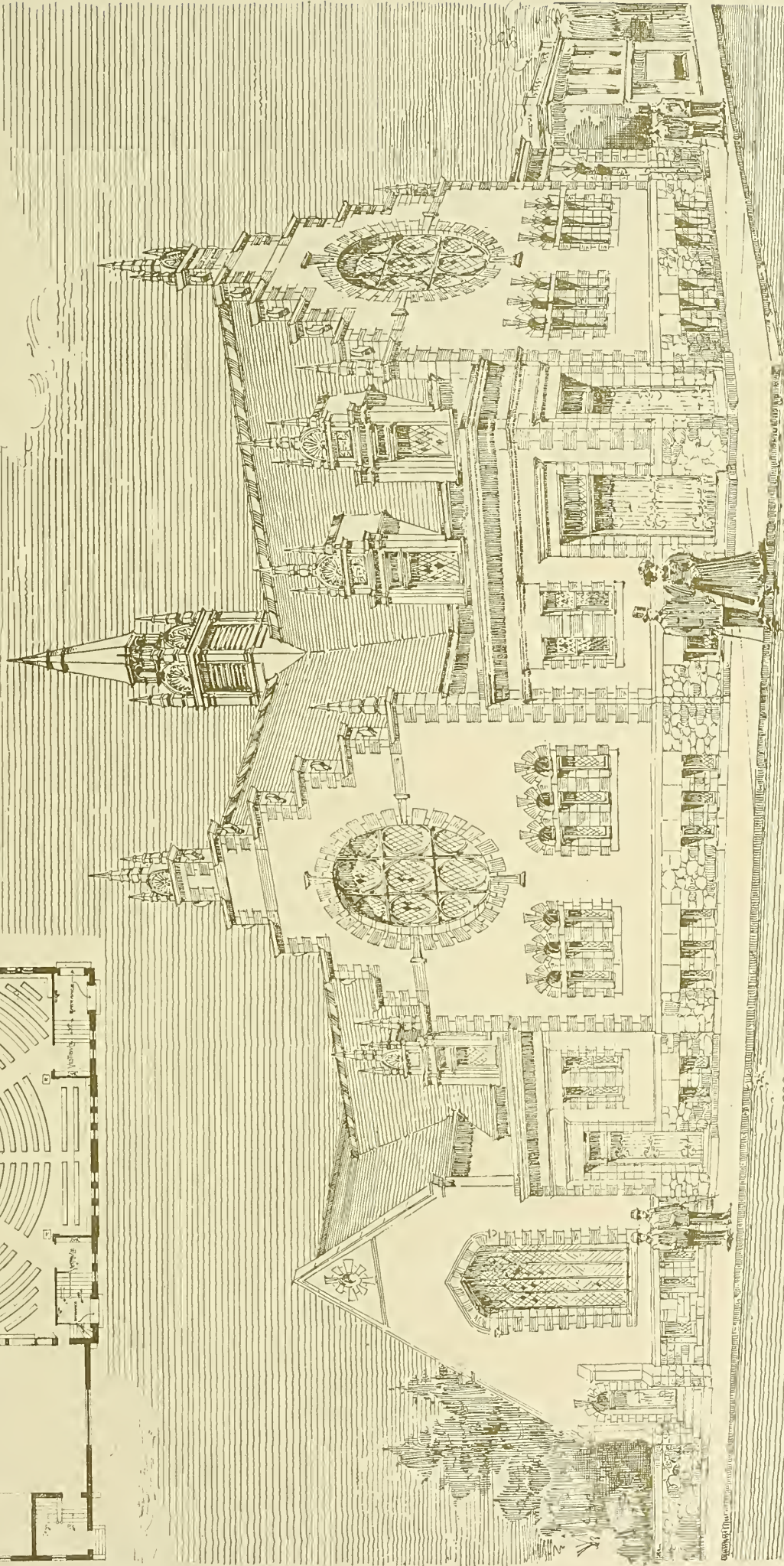
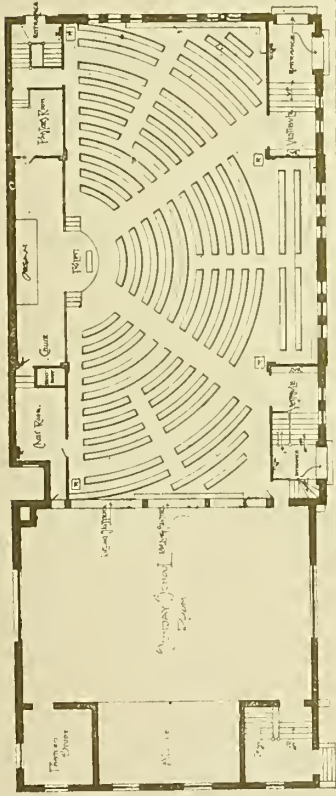
MALCOMSON & HIGGINBOTHAM, ARCHITECTS.



THE LEE BUILDING, ERECTED FOR POST-OFFICE. STATION C.
HILL & WOLTERS DORP, ARCHITECTS.



RESIDENCE FOR FRANCIS COLTON, WASHINGTON, D. C.
C. B. KEFERSTEIN, ARCHITECT.



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ARCHITECTS
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